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A

PRELIMINARY SURVEY OF THE LANGUAGES OF SIND, PAKISTAN

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Finally, our thanks go to all those who helped in so many ways, not the least the village folk in Sind who patiently gave us data in their languages and innumerable cups of tea.

<u>Note</u> : As this report will be of interest for many people who have no background in modern descriptive linguistics, the procedures and methods we have used are explained in full detail.

Phonetic data quoted in the report is enclosed between square brackets.

A PRELIMINARY SURVEY OF THE LANGUAGES OF SIND, PAKISTAN

PART I - GENERAL INTRODUCTION

A - Background Information

The province of Sind lies in the south-eastern corner of Pakistan, bordered by the provinces of Baluchistan and Punjab in the west and east respectively, and by the Indian states of Rajasthan to the ~~east~~ north and Gujarat to the south. (see Map I)

The traditional language of Sind is Sindhi. Khubchandani (1963) estimates that Sindhi was the mother-tongue of some 82 percent of the population of Sind prior to 1947. This figure was drastically altered at Partition in 1947 when around one million Sindhi-speaking Hindus left for India and several million Muslims came to live in Sind. Many of these immigrants were mother-tongue Urdu speakers and there is now a large enclave of over 2 million such speakers in Karachi alone. Urdu is also the national language of Pakistan and is generally the second language for those for whom it is not a mother-tongue (around 8 percent of Pakistan's 75 million population speak Urdu as their mother-tongue).

To the west of the Sindhi-speaking area, Baluchi is spoken, while the Pashto-speaking area connects with Sindhi in the north-west. To the north and north-east, Sindhi meets that group of dialects which are normally called Lahnda or Western Punjabi by linguists. To the east are another group of languages/dialects covered by another term coined by linguists, namely Rajasthani.* Finally, to the south and south-east of Sindhi is Gujarati - particularly several dialects of this language going under the general name of Kachi.

* Probably first formalised by Grierson in his "Linguistic Survey of India, 1916 - 1919.

MAP 1 : PAKISTAN & its neighbours,
showing main language distribution



B - The Languages of Sind

Besides the two major languages - Sindhi and Urdu - which are spoken in Sind and have already been mentioned, there are numerous other languages represented in the province. Some of these are spoken by people who have come to Sind from other provinces, and there are large communities of Baluchi, Punjabi and Pashto speakers in most of the towns of Sind. There are also enclaves of speakers of lesser-known languages who originate from other parts of Pakistan - such as the Makrani and Brahui people from Baluchistan or the speakers of various tribal languages from the North-West Frontier Province. This survey does not concern itself with these languages - this would probably be more suited to a linguistic survey of Pakistan rather than Sind!

However, in addition to the languages already mentioned, there are over one million people of Hindu background who are resident in Sind and who speak numerous languages and dialects. Most of these people originate from what are now the states of Rajasthan and Gujarat in India and came to Sind during the last 150 years looking for work or for food at times of famine in the past. The majority of them work on the land as share-croppers for landlords.

These people are found throughout Sind and, in one particular case, in southern Punjab. However, their main concentration is in lower Sind, east of the River Indus and out towards the Thar desert (see Map 2). The languages of these people are unwritten and the major purpose of this survey is to make a preliminary investigation of them.

C - Survey Aims

The aims of this survey, in relation to the languages of the Hindu tribal people, can now be more precisely defined as follows:-

1. To collect and record data in various locations from as many of these languages as possible.

2. To try to establish the lexical divergence between the various tribal languages - in particular to see which appear to be related dialects and which are clearly separate languages.



MAP 2 : SIND, showing main concentration of Hindu tribal people (within circle)

3. To decide which of these languages warrant further linguistic research and accompanying language-related activities.

4. To compare data from the tribal languages with data from Urdu, Sindhi and Gujarati in order to ascertain any close relationships. It was hoped also that this comparison would give some idea of the comprehension of these three (written) languages by tribal speakers (see later conclusions), and to test the hypothesis that the languages of the tribal people are similar to, or mutually intelligible with, one of these three languages.

D - Previous research.

There has been little previous research into the languages spoken in Sind, especially those of the tribal people. Lambrick, in his general introduction to Sind published in 1964 (second edition 1975) devotes a chapter to the Sindhi language. However, a footnote at the end of the chapter states that the information in it is almost entirely based on Grierson (1916-1919) and Burton (1851)!

An excellent survey and comprehensive bibliography on the research and work undertaken in Sindhi is given by L.M. Khubchandani in Current Trends in Linguistics (Volume 5, 1969). He concludes that

> "research gains in the field of Sindhi linguistics have only been initial. The merit of linguistic research in Sindhi during the last two decades is the collection of new facts. And, in this, the materials gathered together and classified are indispensable. In India, at the Department of Sindhi Linguistics, Deccan College, and in Pakistan, at the Institute of Sindhology, new projects are taking shape" (page 220)

In the same volume, Anwar S. Dil gives an account of "Linguistic Studies in Pakistan". He summarises the work undertaken in Bengali, Urdu, Punjabi, Pashto and Sindhi, and then concludes that

> "very little work has been done on other languages in Pakistan." (page 708)

Apart from Grierson's monumental "Linguistic Survey of India" (1916-1919), we have been unable to locate many other works on the tribal languages of Sind (and Rajasthan and Gujarat) written in this century.* There is an article entitled "Some Phonological Characteristics of Rajasthani" written by W.S. Allen in 1957 which gives an overview of the phonology of several dialects from Rajasthan (including Marwari). There is a chapter on the languages of the Bhils in Koppers and Jungblut's "Bowmen of Mid-India," (1976) Finally, Shackle (1976) gives an excellent account of the Siraiki language in his reference grammar. (Siraiki is spoken in southern Punjab and northern Sind and a sample of Siraiki is given in this survey).

Thus, it can be summarised that, while considerable work has been and is being undertaken into Urdu and Sindhi and the other major languages of Pakistan, there is little or no material available on the lesser-known languages spoken in Sind.

It is with this in mind that this survey is offered as a tentative basis for filling this gap in knowledge and pointing the way for further areas for more detailed research.

* there may be work from India, in particular Deccan College, Poona, which is relevant but is not accessible to us at the present time.

PART II - LINGUISTIC SURVEYS IN GENERAL

A - Language and dialect

The problem of defining "language" and "dialect" is complex, especially in areas where the language is purely oral and not written. This is especially true in the whole of the Indian subcontinent where the largely rural population speak slightly differing dialects along a linguistic continuum rather than clearly defined languages in specific geographical areas. Thus, for example, Punjabi runs down south into Lahnda and then into Sindhi and they merge at a regular and even rate into each other. It is impossible to say at a specific geographical point that the people in one village speak Punjabi while in the nearby village they start speaking Sindhi!

Lockwood (1972) stresses this problem and suggests that

> "the question of what is dialect and what is language must be raised afresh and appropriate definitions sought" (page 198)

A language is rarely defined as a separate language in its own right (apart from all others) on pure linguistic grounds alone. Usually other sociolinguistic factors such as prestige, location, acceptance and political and religious factors play a much greater part in defining one speech variant as a language and other related speech variants as dialects of this language.

These problems of definition are not just theoretical but pose real difficulties for the linguist who is surveying a particular geographical area and seeking to define what languages and dialects are spoken there. Even if he chooses to make decisions on empirical grounds such as lexico-statistics, he still has to estimate a percentage similarity threshold where a dialect becomes a separate language.

B - Measuring intelligibility

Bendor-Samuel (1975) in a paper entitled "Languages or Dialects" summarises the two main types of measurement of intelligibility between related dialects or languages.

1. Comparison of linguistic features - these can be of phonetic similarity, lexical similarity, or grammatical similarity (or any combination of these).

2. Measuring and testing of the degree of comprehension. This involves recording a story (or stories) in one language and playing this to a speaker of another language or dialect. The text of the story is interspersed with questions in the listener's language about the content of the story. Various people are tested in this way and percentage scores of correct answers to the questions are calculated. A threshold of intelligibility is established (usually around 80 percent correct) and languages are defined in terms of the comprehension shown by the tests.*

   There is considerable difference of opinion in the literature as to how closely these two measurements of intelligibility correlate. Bendor-Samuel refers to Wolff (1964) who says that two languages may be lexically very similar and yet the speakers claim that they cannot understand each other. On the other hand, Ladefoged (1972) states that there is a high degree of correlation between lexical similarity and comprehension and he gives figures to show what a lexical-similarity percentage means in terms of a percentage for comprehension. However, he does make an important proviso to this statement

   > "knowledge of the percentage of words in common allows us to predict the degree of comprehension <u>except where questions of prestige are involved.</u>" (emphasis ours)

*The procedures for this kind of testing are explained in great detail by Casad, 1974.

This latter qualification is crucial, for there are very few language groups in the world which are so isolated that they are not influenced by other language groups and thus by questions of prestige (either negatively or positively). In Sind, for example, there would seem to be a much greater preference for Sindhi as a second language among the Bhil groups than among the Koli groups, many of whom still cling to their Gujarati heritage.

C - Sociolinguistic profile

The importance of sociolinguistic factors is being increasingly recognised and attempts have been made, and are being made, to devise a sociolinguistic profile which will elicit such things as prestige factors and the part they play in language acceptance.*

Certainly, such a questionnaire will be a useful tool alongside other measurements of intelligibility. However, we feel that administering such a questionnaire in such a way as to obtain accurate results may prove difficult. It is our experience, even with the short questionnaire we used in this survey, that people tend to give the answers expected of them rather than expressing their own opinions. Probably the only way of obtaining full and accurate information is by identifying fully with the people and language in question - something that is impossible in a survey covering a number of languages.

* Particularly by the Summer Institute of Linguistics in Africa.

PART III - A SURVEY OF THE TRIBAL LANGUAGES OF SIND.

A - Limitations of this survey

This survey is limited to data-collection in various locations from speakers of various languages and dialects plus some brief information about the speakers and their background. The lists of words elicited in the languages are used as the basis for comparisons of lexical similarity between languages. This report thus gives some information about the background and languages of the tribal people of Sind, an assessment of the lexical similarity between their languages, and examples of data from each language investigated.

The report does not include any testing of comprehension. We felt that the area to be covered by the survey was too large for a survey of this type. It is also important when doing comprehension-testing to have a good knowledge of the test language and, preferably, a knowledge of the language of the person being tested in order to accurately evaluate the answers given. This method probably works best where several related dialects are being tested against one variant rather than where many widely differing languages are being tested against each other. It is to be hoped that persons gaining fluency in particular tribal languages will be able to do this kind of intelligibility testing at a future date in Sind and also train personnel who can help in the administering and assessment of the testing.

B - Difficulties encountered

Various difficulties became evident as we proceeded with the survey. We sought to compensate for these factors as we administered the survey, as follows:-

1. The problem of dialectal differences through a linguistic continuum has already been mentioned. We feel, however, that the differences within languages are slight compared with the much greater differences between one language and another. For example, in List 12, Parkari Koli, two lists - one from Mirpur Khas and one from Kunri are amalgamated. The language differences between the two locations were mainly a few phonetic details and about 5 words out of 120. However if, for example, we compare this list with List 10 for Kachi Koli, we see that the differences are far more substantial.

2. The problem of idiolect - i.e., differences in speech from one speaker to another depending on the speaker's background, education, etc. We tried to compensate for this by:-

   a. using speakers who were not too exposed to other languages (especially Urdu and Sindhi) and were constantly using their mother-tongue*

   b. checking through the data with other speakers present.

   We thus feel that, for most of the lists, the problem of idiolect has been minimised.

3. The problem of mobility. Most of the Hindu tribal groups trace their origins to some part of present-day India - usually either Gujarat or Rajasthan. However, this general information is insufficient and other questions need to be asked about a speaker's background. For example, a person may say he originates from Rajasthan and that his mother-tongue is Marwari.

In this connection, women would have been more suitable informants than men. However, this usually was not possible because of social reasons and also the fact that many of the tribal women are completely monolingual.

But we also need to know:-

a. which part of Rajasthan his family came from (most people can name the district and even village). Thus, there is still quite a marked difference between speakers from say Jodhpur and Jaiselmer, even when members from each group have intermarried.

b. how long he has lived in Sind (obviously the longer the time the greater the influence of other languages, especially Sindhi).

c. which part or parts of Sind he and his family have lived in. Many of the tribal people, being landless labourers, have moved around Sind and have thus been subject to various language influences.

It is difficult to calculate the effects of mobility on the tribal speakers but we have attempted to at least list some of these factors in the questionnaire.

4. The problem of the influence of other languages has already been touched on and is of considerable importance. It is most obviously noticed in the triblal languages by the fact that nearly all of them have the characteristic Sindhi implosives and one or two of them even possess a dental implosive which has probably developed by analogy. Khubchandani (1963) has shown the influence of Hindi on Sindhi immigrants in India since Partition and it is likely that the reverse process - the influence of Sindhi on the Hindu tribal languages - is even greater (since they are unwritten and often lack prestige).

   Again, we tried to find out information about exposure to other languages (and even attitudes of preference) in the questionnaire, but with limited success.

5. The problem of language versus caste. We found some confusion in knowing where a particular term referred to a caste (or tribal group) and where it was used for a language name. In many cases the same term referred both to a people and their language. A number of terms, however, refer to a caste or caste occupation, and we discovered that the people of this caste spoke a language by some other name. For example, Valmiki seems to refer exclusively to a caste of people who speak various languages rather than a language called Valmiki. We took a list from a Valmiki group in Shikarpur which was almost completely standard Hindi.

<u>Bhil and Koli</u> Koppers and Jungblut (1976) have examined the language of the Bhils in Gujarat and conclude that there is now no trace of their original Bhili language in their speech - rather they have adapted to the speech of the people around them. Thus, the term "Bhil" should be regarded as a name for a large caste or tribal grouping rather than a linguistic grouping. We suspect (though we have no clear evidence at present) that the same may be true of the term "Koli" (or "Kori"). A large number of the tribal people in Sind call themselves by one of these two terms.

C - Devising the Survey

The Survey was devised to elicit two broad areas of information : a questionnaire giving brief biographical details about the speaker, and data from his language. These two areas are now described in full.

1. <u>Questionnaire</u>

An attempt was made to elicit the following information from each speaker:-

1. Name
2. Name of Father
3. Sex
4. Approximate age
5. Caste
6. Place of present residence
7. Origin of family
8. Previous residence within Sind
9. Mother-tongue
10. Father-tongue (if different from 9)
11. Which other languages do you speak? (and prefer?) - (in order of fluency)
12. Which other languages do you understand? - (in order of comprehension)
13. Details of schooling and education (if any)
14. Date of elicitation of data
15. Recorded by .....
16. Any particular details about the phonetic recording (noted after the list was taken)

As mentioned previously, it was often difficult to find accurate answers to some of these questions. The details recorded for each list are given later.

2. The data

The data elicited in each language-list consisted of eight main sections. These are now listed and briefly described.

SECTION A : WORD LIST

This section forms the main basis for future lexico-statistical calculations and is therefore described in more detail than the other sections.

We first experimented with a 200 Word-List but eventually reduced it to one of 120 words. We found that the 200 Word-List took too long to elicit in village situations and that 120 words were adequate for comparison. In addition to this, some of the original words proved either too difficult to elicit accurately or were semantically confusing. In spite of these eliminations, some words still created problems and these are noted below.

The Word-List was ordered for ease of elicitation, beginning with body-parts (which could be obtained by gesture) and going on to more difficult or abstract words. Some 76 of the 120 words are found in the Swadesh 100 Word-List which is usually used for lexico-statistical purposes. These words are listed by Swadesh-number in parentheses below.

1. eye (56)	2. ear (55)	3. finger
4. nose (57)	5. tooth (59)	6. tongue (60)
7. hair (53)	8. knee (91)	9. bone (47)
10. blood (46)	11. skin (44)	12. flesh (45)
13. mouth (58)	14. hand (92)	15. foot (15)
16. man (31)	17. woman (30)	18. boy
19. girl	20. baby	21. father (32)
22. mother	23. name (100)	24. cat
25. dog (35)	26. goat	27. cow
28. buffalo	29. camel	30. rat
31. ox	32. horn (50)	33. tail (51)
34. bird (34)	35. crow	36. parrot
37. egg (49)	38. feather (52)	39. snake (37)
40. ant	41. fly	42. mosquito
43. louse (36)	44. fish (33)	45. sun (67)
46. moon (68)	47. star (69)	48. sky
49. water (70)	50. rain (71)	51. cloud (75)
52. river	53. wind	54. night (86)
55. sand (73)	56. stone (72)	57. fire (77)
58. smoke (76)	59. ash (78)	60. seed (39)
61. tree (38)	62. leaf (41)	63. flower
64. grass (40)	65. village	66. house
67. well	68. path (80)	69. door
70. plough	71. bangle	72. ring (finger)
73. (uncooked) rice	74. salt	75. pepper
76. lentils	77. flour	78. milk
79. mango	80. banana	81. one (11)
82. two (12)	83. three	84. ten
85. many (10)	86. big (13)	87. small (29)
88. new (96)	89. good (97)	90. dry (98)
91. wet (99)	92. hot (92)	93. red (82)
94. white (84)	95. black (85)	96. to drink (17)
97. to eat (18)	98. to see (20)	99. to hear (21)
100. to sleep (23)	101. to go (27)	102. to fly (bird)
103. to come (62)	104. to sit (63)	105. to stand (64)
106. to give (65)	107. to take	108. to speak (66)
109. what? (7)	110. when?	111. who? (6)
112. where?	113. why?	114. I (1)
115. thou (2)	116. he/she (4-5)	117. we (3)
118. you (plural)	119. they	120. and

Note : for the verbs (96-108), the third person masculine singular simple present forms were elicited (e.g. "he sees") in order to obtain the verb roots.

Comments on specific words

Where possible, word-lists were elicited with at least two speakers of the language present for cross-checking, or the data was checked later with another speaker. However, in some situations this was not possible and some doubtful forms are found in the lists - these are marked (?) following the word in question. Some comments on specific words are now listed:

7. "hair" was usually elicited by pointing to the hair of the head. Thus, some words have the prefix [mʌth-] meaning "head" which has been ignored for comparative purposes.

17. "woman" some of the words elicited seem also to include the semantic component of "wife" as well as "woman".

20. "baby" some of the words elicited seem to include the semantic component of "child" as well as "baby".

39. "snake" [nag] originally meant "cobra" but has now come to be used as a generic term for all snakes in some languages.

52. "river" the two words [nʌdi] and [dʌrija] seem interchangeable in some languages, while in others they reflect a difference in size.

55. "sand" [ḍhur] and its cognates probably refers to "fine dust" rather than sand.

72. "ring" various words are used for different kinds of finger-ring. We used a plain silver ring for elicitation. It is probable that [mundhi] and cognates refers to a ring with a stone in it.

98. "to see" most of the languages seem to have at least two words covering the semantic area of "see". Often a different word was discovered in Section D (The Verbal System) than the one given in the word-list. Where this was the case, both words were included for comparative purposes.

105 "to stand" the root [uṭh-] given in some lists probably means "get up" rather than "stand".

116 "he/she" there is no distinction in gender pronouns for "he" and "she" in any of the languages. However, there is a distinction between "near" and "far" for persons and objects and both forms are included in the lists.

117 "we" some languages have both "inclusive" and "exclusive" forms for this pronoun (also marked in the following verb). We have included both, but only used the "inclusive" form for comparative purposes.

120 "and" proved to be most difficult to elicit.

SECTION B : NOUNS & MODIFIERS

This section attempted to find out single and plural forms for "boy", "girl" and "baby" along with qualifying adjectives, and also some demonstrative forms. All the languages had either two or three genders.

SECTION C : IDENTIFICATION

This section briefly explored identification of objects and also some possessive and genitive forms.

SECTION D : THE VERBAL SYSTEM

This section investigated paradigms in simple past, present and future for the verb "to come", plus a few negative and imperative forms. It also checked the past tense forms for a transitive verb ("to see") as some languages have special forms or markers on pronouns in this context.

SECTION E : DESCRIPTION

This only investigated three forms - namely, "the boy is sick", "the water is hot" and "I am tired".

SECTION F : LOCATION

This section was included in order to discover something about the postpositions and the forms of the nouns they qualify.

SECTION G : POSSESSION

This was another brief section which included three forms - "he has a knife", "he does not have a knife" and "she has three children".

SECTION H : INTERROGATIVE

This section checked the form of both polar and content questions, paying particular attention to any distinctive intonation contours.

NOTE The actual data required for all the languages under each of these sections is included in a separate appendix which is available independently from this report for those who are particularly interested in the data (as opposed to simply the results of the survey.)

D - The Languages of the Survey

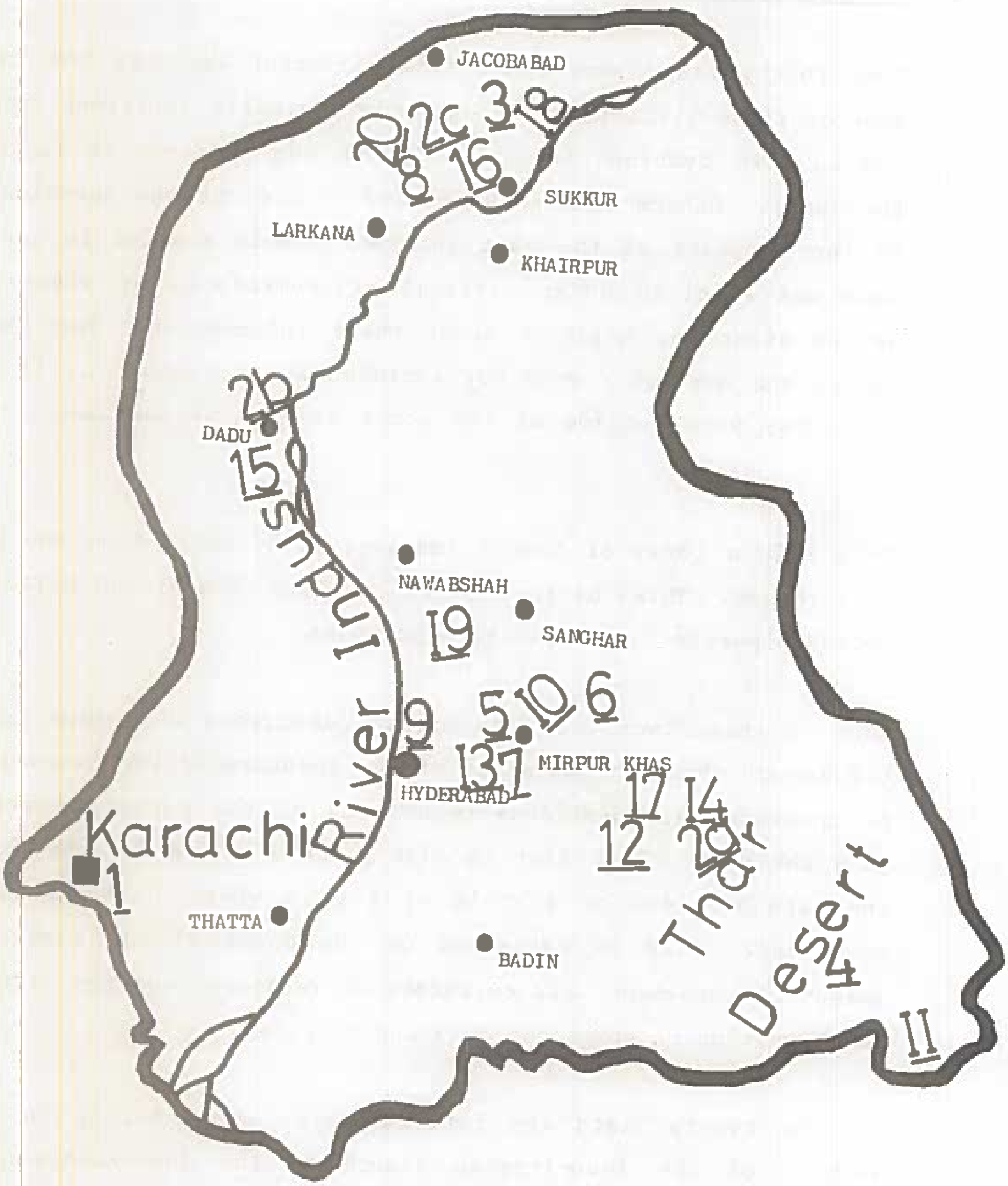
Over thirty lists were taken from different speakers and locations. Some of these lists proved to be only minimally different from others and so were combined together (though the differences are noted in the data). Others were not included because of the questionableness of the accuracy of the data obtained - this applied in cases where data was elicited under difficult circumstances or where speakers seemed unsure or hesitant about their information. Two lists - in Brahui and Makrani - were not included in the report as it was felt that they were outside of its scope and not predominantly native to Sind.

This left a total of twenty language lists which form the basis for this report. Three of the lists - in Urdu, Sindhi and Gujarati - are included purely for comparative purposes.

Each of these twenty is now briefly described with some information (if known) about the location of the speakers of the language, number of speakers and questionnaire details of the person or persons who gave the data. Each list is also given a rating for the accuracy of the data recorded on a scale of 1 to 5 where 1 is poor and 5 is excellent. This is estimated on the basis of the clarity of the speech of informant, his certainty of response, and the difficulty of the situation in which the data was elicited.

All the twenty lists are from languages which belong to the Indic section of the Indo-Iranian branch of the Indo-European language family.

See Map 3 of Sind for the location of the informants for each list.



MAP 3 : SIND, showing locations of speakers used in Survey (by language number)

1 - Urdu

The national language of Pakistan. Details about Urdu have already been mentioned. It is spoken as a mother-tongue by around 30 million people, some $3^1/2$ million of whom now live in Pakistan.

Data recorded from Mr. Aga Ata who is an Urdu language-teacher in Karachi. He is originally from the Delhi/Simla area in India and has lived in Pakistan since 1947. His mother-tongue is Urdu and he also speaks English fluently and some Pashto and Persian. He is in his thirties.

Rating : 5

2 - Sindhi

The historical language of the provice of Sind. Some details already mentioned. Several dialects of Sindhi are listed by Grierson (1916-1919) but there seems nowadays to be a generally accepted literary Sindhi which is probably based on what Grierson called Vicholi (Central) Sindhi. We collected Sindhi data in the north of Sind (from a Hindu) and from central Sind (from Muslim speakers) and found that the two had 96 percent of their lexicon in common. Other differences were confined to a few phonetic variations and a small number of grammatical changes. Khubchandani (1963) gives an overview of the structure of Sindhi and a brief mention of its dialects.

Data recorded from:

a. Mr. Aladino in Hyderabad. He is a teacher in his thirties and originates from Chailar in the Thar Desert. His mother-tongue is Dhatki but his education and work has all been in Sindhi from an early age. He also speaks Urdu and English.

b. Mr. Masroor Junejo is a University student fro Dadu district and is a mother tongue Sindhi speaker. He is in his early twenties and speaks fluent English. We checked our data from Mr. Aladino against him and found only a few minimal differences.

c. Mr. Thikam Das is a Hindu of the Bania caste and is 75 years old. He lives in Shikarpur where his family have lived for many generations. His mother-tongue is Sindhi and he has had 7 years of schooling in Sindhi. He also speaks a little Urdu, Pashto and Punjabi.

The list given in the survey is for informants a. and b. (Rating 5) but where c. (Rating 3) shows differences these are added after this sign /

3 - Siraiki

Siraiki (an unwritten language) is spoken in southern Punjab and northern Sind and is also known as southern Punjabi, Multani or Riasiti. Shackle (1976) distinguishes clearly between Siraiki proper and Sindhi Siraiki but his criteria do not clearly fit the data we obtained into one or other of these variants. Shackle estimates that Siraiki is the mother-tongue of 15 million people in Pakistan.

Recorded from Mr. Shahomir, age 40 who belongs to the Chang, Baloch caste. He is resident at Chang Village, Shikarpur and has lived there for 35 years. Previous to this he lived in Baluchistan. His mother-tongue is Siraiki and Sindhi is his next-best language. He speaks some Urdu and Baluchi and a little Punjabi. He does not have any schooling.
Rating : 3/4

4 - Dhatki Bhil (Thar)

Grierson explains the origin of the name Dhatki to derive from the home of these people in the Dhat Desert in Rajasthan. In Sind this desert is called the Thar and the people are sometimes known as Tharis. They are found in lower Sind as far west as Mirpur Khas and a little beyond. Grierson estimated their total population (early in this century) to be 200,000 : There are probably at least 75,000 in Sind today. Interestingly, Grierson states in his Survey that Dhatki is a dialect of Sindhi but he later retracts this and says it is a language between Sindhi and Marwari.

Recorded from Mr. Tharu Sing, aged 28, at his village : Chache ji Veri, Tahsil Mithi, Lunia, vis Islamkot. The data was recorded with several other Dhatki speakers in attendance who also contributed information. His family have lived in this village for over one hundred years. He attended school up to Matriculation and his next-best language is Sindhi followed by Urdu.

Rating : 4

5 - Dhatki (Rajasthan)

Recorded from : Mr. Haroon Habib Nahuri, son of Habib Nahuri, aged about 20, belonging to the Nahuri Arbab (Muslim) caste. The data was recorded near his village : Haji Lal Bakshk, Rattnabad, near Mirpur Khas. His family have resided there for 13 years : Previously they lived in Kahriya, Jodhpur, Rajasthan, India. His mother-tongue is Dhatki and he also speaks some Sindhi and Urdu. He does not have any schooling.

Rating : 3/4

6 - Marwari (Meghwar, Jaiselmer)

Marwari is one of the main dialects spoken in Rajasthan, India. Perhaps as many as 6 or 7 million people speak it as their mother-tongue. The literary language of Rajasthan is Hindi and Marwari is not usually written. There are probably over 100,000 speakers of Marwari belonging to Hindu tribal groups in Sind. (We do not know how far their present language differs from modern Marwari in Rajasthan). The Marwari-speaking Hindu tribal people are found in upper Sind as far south as Tando Mhoammed Khan and Tando Ghulam Ali, and in southern Punjab east of the Sutlej River beyond Bahawalnagar.

Recorded from : Mr. Prem Das, son of Nanakh Das, aged about 25, caste Meghwar/Meghrikh. He lives in Phuladiyon, Sanghar District and his family have resided there for around 50 years. Before this they lived in Mandaji Village, Jaiselmer, Rajasthan. His mother-tongue is Marwari (also called Jaiselmeri) and he uses Sindhi (especially in the rural areas) and Urdu (in the local town.) He also speaks Dhatki and a little English and understands some Koli dialects. He has had schooling up to matriculation.

Rating : 3/4

7 - Marwari Bhil

Recorded from Mr. Virmo assisted by one other speaker. He is in his thirties and lives at Seth Devraj Mal, near Mirpur Khas where he has lived for many years. His caste is Bhil and his mother-tongue is Marwari Bhil. He also speaks some Sindhi and Urdu but has no schooling.
Rating : 3

8 - Marwari Bhil (Jodhpur)

Recorded from Mrs. Hamo Margaret with one other lady speaker. She is aged 20 and belongs to the Hudija caste of the Bhils. Her family home is in Sameja, Deherki, Sukkur District where they have lived for 50 years. Before this they lived in the desert part of Jodhpur, Rajasthan. She now lives in Shikarpur from where this data was elicited. Her mother-tongue is Marwari Bhil and her next-best language is Sindhi followed by Urdu. She also understands some Punjabi. She has had six months schooling.
Rating : 4

9.- Gujarati

Gujarati is the state language of Gujarat, India and the mother-tongue of over 20 million people. This list is included for comparative purposes as many of the Koli people originate from the Katch area of Gujarat and claim Gujarati to be their written, if not spoken, language.

Lockwood (1972) states that:-

> "Some 400,000 persons, natives of the Cutch (Katch), speak non-literary dialects intermediate between Gujarati and Sindhi.....These dialects are sometimes considered as forming a separate language." (page 203)

Recorded from Mr. Martin Parmar in Hyderabad. Mr. Parmar belongs to a Gujarati-speaking family from Ahmedabad in Gujarat and they have lived in Sind for one generation. Mr. Parmar is an educated man, aged around 40, who also speaks fluent English and Urdu.
Rating : 5

10 - Kachi Koli

We do not have much information about the Kolis as a group. Lambrick merely states that:-

> "the Kholis and Bhils of Sind east of Indus are modern immigrants." (page 218)

There are various spellings of Koli - Kholi, Kolhi, Kohli, though they call themselves Kori. They are divided into different groups in Sind with a prefix to their name which usually refers to their place of origin in Gujarat.

The Kachi Kolis number around 50,000 people in Sind and they are found in lower Sind in an area bordered by Sukrand and Nawabshah in the north, Matli in the south, and out east beyond Mirpur Khas and Jamesabad. They are particularly concentrated in the area around the towns of Hala and Tando Adam.

Data recorded from Mr. Manji (aged 25) and Mr. Mavo Masih (aged 14),both mother-tongue speakers of Kachi Koli. Manji is from Navazabad Farm, Sajna Dhe, Hyderabad (at which place the data was recorded) while Mavo is from Tando Sumro, Chacharki, Hyderabad. Mavo is attending school at present while Manji has no schooling. They both speak Sindhi as their second language and Mavo has a good knowledge of Urdu and a little Punjabi, while Manji speaks good Punjabi and only a little Urdu. They also understand some languages of the Bhils as there is a Bhil section in Manji's village. Several other Kachi Koli speakers were in attendance when the data was elicited.

Rating : 4

11 - Parkari Koli (Nagar Parkar)

The Parkari Koli people take their name from the district of Tharparkar and especially the town of Nagar Parkar in the south-eastern tip of Sind bordering with India. They are found over a wide area in Sind covering most of the lower Thar desert and then west as far as the River Indus, bordered in the north and west by Hyderabad and down to the south and west of Badin. Their numbers in Sind are around 150,000.

Data recorded from Mr. Deya Ram James with his family also in attendance. He is aged 25 and belongs to the Chuhan caste of the Kolis. He lives in Nagar Parkar (where the data was recorded) and has lived there for the last 5 years. Before this he lived in Badin. His mother-tongue is Parkari Koli (also called Parkari Gujarati) and he also speaks Sindhi and Urdu. He attended school up to matriculation.
Rating : 4

12 - Parakari Koli (Kunri/Mirpur Khas)

Two more lists were recorded for Parkari Koli - one in Kunri and one in Mirpur Khas. The differences between there two were minimal - a few words and one fairly regular vowel change. The two have thus been combined and the list from Kunri is given first. If the Mirpur Khas list shows a difference, it is given after the Kunri data following the sign /

Kunri list recorded from Miss Adriana Joseph (in her teens) and her mother and sisters. The list was taken in Kunri, Umarkot where the family have resided for 25 years. Before this they lived in Nagar Parkari. She is in the 9th class at school and speaks Urdu, a little Sindhi and a little English. She also understands some Marwari. Her mother-tongue is Parkari Koli.
Rating : 4/5

Mirpur Khas list recorded from Mr. Anthony Javed (in his mid twenties) from Josephabad near Mirpur Khas. He has lived here for 4 years and previously lived in Sinjharchang Village, Hyderabad and, before this, in Nagar Parkar. He attended school up to Matriculation. His mother-tongue is Parkari Koli and Urdu is his next-best language. He also speaks a little Sindhi and Punjabi and understands some Dhatki.

Rating : 4/5

13 - Wadiyara Koli

The Wadiyara Koli and a closely related group, the Mayvasi Koli, take their names from their place of origin in Gujarat. They are found in Sind in an area bounded by Hyderabad, Tando Allahyar and Mirpur Khas in the north, and Matli and Jamesabad in the south. Their estimated population is 75,000 people.

Data recorded from Mr. Sagram Das, a man in his early forties. The data was elicited near his home in Rattnabad, Mirpur Khas where he has resided for the past 30 years. Before this he lived in Gujarat. His mother-tonge is Wadiyara Koli and he also speaks Urdu and Sindhi and knows a little Marwari Bhil and Dhatki Bhil.

Rating : 4

14 - Tharadari Koli

The Tharadari Koli take their name from Tharad, their place of origin in Gujarat. They are found mainly in the lower Thar Desert and west as far as Mirpur Khas. They number about 30,000 people.

Data recorded from Mrs. Manu, wife of Ganesh, aged about 35. Her family caste is Suban and her mother-tongue is Tharadari Koli. Her home is in Jindal Shah, Langni, Umarkot where she has lived for at least 40 years. She speaks a little Sindhi and understands Kachi Koli. She does not have any schooling.

Rating :4

15 - Odki (Dadu)

The Od people are found in many parts of Sind rather than in one particular geographical area. This is probably because their main occupation - building mud walls and houses and making bricks - takes them to many parts for work. They number perhaps 20,000 people in Sind and we are unsure of their origin or the origin of their name which is now almost synonymous with their occupation.

Data recorded from Pastor David Ranjha, son of Manak, aged 40 and belonging to the Od caste and speaking the Od language. His home is in Shahani Para, Dadu and his family have lived in Dadu for many generations. He speaks Sindhi and Urdu and is educated in Sindhi.
Rating : 4

16 - Odki (Shikarpur)

Data recorded from Mr. Chatan Das. It was difficult to obtain questionnaire details from him. He seemed to be in his sixties and has lived in Shikarpur (where the list was taken) for over 50 years.
Rating : 2/3

17 - Odki (Pithoro)

Data recorded from Mr Jetu, son of Damu, aged about 25, along with several other Od speakers from his village. He is from Pithoro and his family have lived there for two generations. Previously they lived in Marwar, Rajasthan. His mother-tongue is Odki and he also speaks some Sindhi and understand some Gujarati.
Rating : 3

18 - Bagri

The Bagris are another group who are found in villages or settlements around the towns in Sind rather than in a particular geographical area. They generally practise begging. Their numbers are around 15,000 and we are unsure of their origin.

Data recorded from Mr. Thulsi Das and Mr. Gangar Ram, both in their late forties with the help of the rest of the village! They reported their caste as Kori, Charan and they have lived around Shikarpur for the last 20 years. Their mother-tongue is called Bagri and they also speak some Sindhi and understand some Urdu.
Rating :3

19 - Vaghri

The Vaghris are found especially in Nawabshah in Sind as well as a few families in other towns. There are at least 500 families of Vaghris and they are divided into at least two main groupings according to their different occupations - masonry work or selling fruit. They are said to have originated from an area between Jodhpur and Jaipur in Rajasthan called Valotru.

Data recorded from Mr. Jiva or Zivlo, son of Navo, grandson of Haroni, belonging to the Honklo caste of the Vaghris. He came to Sind just before Partition and he has moved around Sind for his masonry work. He is at present based near Tando Adam. His mother-tongue is Vaghri and he speaks sone Sindhi, Urdu and Gujarati as well. He studied a little Sindhi as a child.
Rating : 4/5

20 - Sansi

We have not been able to discover much about the Sansi people. They seem to be found mainly in upper Sind and practise begging. They claim to be Bhils but other tribal groups seem to deny this.

Data recorded from two men in their teens - Aslam and Kamalu - surrounded by at least 20 other Bagris in their village - Haji Gul Mohammed, near Shikarpur. The people have lived here for 9 years and seem to have moved around a lot : Multan, Punjab (5 years), Khanpur (7 years) and Bikaner, Rajasthan (40-50 years?). They claim to be Bhils by caste. Their mother-tongue is Sansi and Sindhi is their next best language followed by Urdu and Punjabi.
Rating : 3/4

E - Administration of Survey

The data we used was first elicited for Sindhi and Urdu using a phonetic script.* One of these languages was then used as a basis for eliciting data from the unwritten tribal languages, along with gestures and explanations where necessary. On several occasions we were also assisted by other persons speaking Urdu or Sindhi (or even some of the tribal languages) in order to communicate with the informants.

The data was elicited in various conditions and locations ranging from our home near Mirpur Khas to the villages of the people or wherever speakers could be found.

The data was all recorded phonetically and the acquisition of all the Sections in the data ranged from two to over four hours work per language depending on the situation and understanding of the informant.

* The Phonetic Script used was that of the International Phonetic Association (IPA) with a few modifications. See the later section on the Phonetics of the Languages.

One problem with acquiring data in this way is that it assumes a direct lexical equivalence between languages (some specific problems in this area have already been mentioned). We tried to be aware of this and to ask questions about the area of meaning of a particular item where we felt there was some doubt. The problem was minimised by the fact that all the languages belong to the same sub-group of the same language-family. The problem was greater with the sections containing longer utterances as these required the informant to translate from one language to his own and the tendency could be for him to use a similar grammatical construction even though his own language may prefer something more natural.

These kind of problems are due mainly to the nature of the survey itself and can only be overcome by the intensive study of text material and natural conversation in each of the languages.

After collecting the data in a language, it was entered in a large book so that each item of data could be readily compared on the same page with the forms for that data item in all the other lists - e.g. all the forms for "man" in each of the twenty lists were entered below each other on the same page. This enabled rapid and accurate lexico-statistical calculations to be made. The data is presented in a similar way in the appendix.

F - Evaluation of the data

All our detailed calculations of language similarity are based on Section A of the data (the 120 Word-List). We did not use the later Sections for calculations because we were not able to devise an accurate method of calculating the similarities. Also, as mentioned previously, we were not so certain of the exact semantic equivalence of the forms given in the longer utterances. These later Sections, then, serve as examples of the languages and some broad observations can be made - such as the number of genders or basic verbal structures.

CALCULATION All the calculations for a particular word were made together for consistency. Thus, for example, with Word 1 "eye", List 1 was compared with all the other nineteen words, then List 2 with the other eighteen, etc., until each list had been compared with each other. The results were entered on a large score-sheet. After all 120 words had been compared the results were totalled and percentanges were calculated.

Percentages showing two kinds of similarity were calculated and are shown on separate charts:

1. Look - alike percentage. This has been obtained by comparing each pair of words and saying whether they look alike or are different. In a few cases this has led to difficult and sometimes arbitrary decisions. For example Word 9 "wet" has the roots [gil-], [nil-] and [lil-] and it is difficult for us to judge if these are look-alikes with sound-changes. A greater knowledge of comparative linguistics for the Indic group of languages would probably have resolved these problem cases.

However, in most examples it has been possible to make quick and accurate decisions. Nevertheless, this method has a more serious limitation - it does not take into account the degree of difference. Thus, two words that are identical and two words which may have several differences still may score the same - as look-alikes. For this reason, a second method of comparison has also been used.

2. Weighted percentage This method was used for a language survey in southern Sudan and works as follows:

- each pair of words is given a value of four points

- identical pairs score four points, those with one sound difference scored three points, with two sound differences two points, with three one point, and four or more different (and, of course, completely different words) zero.

- where a regular sound-change occurred between two languages, only one point was deducted on the first occasion and later occurrences were ignored.

This gave a maximum possible total of 480 points between each pair of languages which was reduced to a percentage.

It is our opinion that the weighted percentage gives a more accurate figure for the lexical similarity between languages and this is used as a basis for later conclusions.

NOTE : Obviously, the weighted percentages score lower than the look-alike percentages. However, as can be seen from the charts, the differences between each pair of percentages is not just a regular reduction in percentage.

G - Lexico-Statistical Charts

Two charts are now given on the following pages in order to show the percentage similarity between each of the twenty lists. The first shows the look-alike percentage and the second shows the weighted percentage. The languages are listed from 1 through to 20 as given under the section of the report entitled "The Languages of the Survey". They are listed again below with the abbreviated forms of the names which are used on the charts.

Number	Name	Abbreviated name on charts
1	Urdu	Urdu
2	Sindhi	Sindhi
3	Siraiki	Siraiki
4	Dhatki (Thar)	Dhatki (a)
5	Dhatki (Rajasthan)	Dhatki (b)
6	Marwari (Meghwar, Jaiselmer)	Marwari (a)
7	Marwari Bhil	Marwari (b)
8	Marwari Bhil (Jodhpur)	Marwari (c)
9	Gujarati	Gujarati
10	Kachi Koli	K. Koli
11	Parkari Koli (Nagar Parkar)	P. Koli (a)
12	Parkari Koli (Kunri/Mirpur Khas)	P. Koli (b)
13	Wadiyara Koli	W. Koli
14	Tharadari Koli	T. Koli
15	Odki (Dadu)	Odki (a)
16	Odki (Shikarpur)	Odki (b)
17	Odki (Pithoro)	Odki (c)
18	Bagri	Bagri
19	Vaghri	Vaghri
20	Sansi	Sansi

Percentages on the charts are rounded off to the nearest decimal place.

CHART SHOWING LOOK-ALIKE PERCENTAGES BETWEEN LANGUAGE-LISTS

	1 Urdu	2. Sindhi	3. Siraiki	4. Dhatki (a)	5. Dhatki (b)	6. Marwari (a)	7. Marwari (b)	8. Marwari (c)	9. Gujarati	10. K. Koli	11. P. Koli (a)	12. P. Koli (b)	13. W. Koli	14. T. Koli	15. Odki (a)	16. Odki (b)	17. Odki (c)	18. Bagri	19 Vaghri	20. Sansi
1 Urdu		53	56	58	56	59	58	62	65	52	54	56	52	55	59	58	62	63	51	71
2 Sindhi	53		85	71	71	68	67	63	60	50	52	60	48	52	66	58	63	55	48	63
3 Siraiki	56	85		66	68	63	63	63	53	49	52	61	45	51	68	64	62	56	45	68
4 Dhatki (a)	58	71	66		88	80	83	80	71	68	73	77	68	68	71	68	74	69	63	66
5 Dhatki (b)	56	71	68	88		80	79	80	65	62	68	75	60	67	72	68	71	63	61	67
6 Marwari (a)	59	68	63	80	80		86	87	75	68	72	76	64	68	78	70	74	69	68	66
7 Marwari (b)	58	67	63	83	79	86		88	72	70	77	83	69	75	72	70	76	73	73	65
8 Marwari (c)	62	63	63	80	80	87	88		73	71	75	79	70	75	75	73	77	76	71	68
9 Gujarati	65	60	53	71	65	75	72	73		78	72	75	77	75	64	63	66	72	70	68
10. K. Koli	52	50	49	68	62	68	70	71	78		79	79	84	84	65	63	68	67	76	63
11 P. Koli (a)	54	52	52	73	68	72	77	75	72	79		88	78	78	64	66	68	67	73	60
12. P. Koli (b)	56	60	61	77	75	76	83	79	75	79	88		76	83	68	67	73	70	74	65
13 W. Koli	52	48	45	68	60	64	69	70	77	84	78	76		90	60	59	68	62	78	58
14. T. Koli	55	52	51	68	67	68	75	75	75	84	78	83	90		62	62	69	68	76	63
15 Odki (a)	59	66	68	71	72	78	72	75	64	65	64	68	60	62		86	88	70	61	65
16 Odki (b)	58	58	64	68	68	70	70	73	63	63	66	67	59	62	86		81	71	58	63
17 Odki (c)	62	63	62	74	71	74	76	77	66	68	68	73	68	69	88	81		71	66	66
18 Bagri	63	55	56	69	63	69	73	76	72	67	67	70	62	68	70	71	71		66	69
19 Vaghri	51	48	45	63	61	68	73	71	70	76	73	74	78	76	61	58	66	66		53
20 Sansi	71	63	68	66	67	66	65	68	68	63	60	65	58	63	65	63	66	69	53	

CHART SHOWING WEIGHTED PERCENTAGES BETWEEN LANGUAGE-LISTS

	1 Urdu	2. Sindhi	3. Siraiki	4. Dhatki (a)	5. Dhatki (b)	6. Marwari (a)	7. Marwari (b)	8. Marwari (c)	9. Gujarati	10. K. Koli	11. P. Koli (a)	12. P. Koli (b)	13. W. Koli	14. T. Koli	15. Odki (a)	16. Odki (b)	17. Odki (c)	18. Bagri	19 Vaghri	20. Sansi
1 Urdu		42	44	44	43	47	43	48	53	39	40	42	39	40	47	46	49	53	36	62
2 Sindhi	42		75	60	59	54	54	50	45	38	41	46	36	38	55	45	53	43	35	47
3 Siraiki	44	75		54	56	50	50	51	39	37	41	48	35	39	58	52	53	44	33	51
4 Dhatki (a)	44	60	54		79	68	71	70	56	50	60	61	50	51	61	57	64	54	49	54
5 Dhatki (b)	43	59	56	79		67	67	67	51	47	55	61	46	51	60	55	59	49	48	54
6 Marwari (a)	47	54	50	68	67		72	75	62	54	58	61	49	50	67	59	65	57	53	54
7 Marwari (b)	43	54	50	71	67	72		73	58	58	68	72	56	62	59	56	63	58	63	50
8 Marwari (c)	48	50	51	70	67	75	73		58	55	61	65	53	56	63	61	66	61	53	57
9 Gujarati	53	45	39	56	51	62	58	58		62	58	62	59	56	53	52	55	59	54	58
10 K. Koli	39	38	37	50	47	54	58	55	62		66	66	72	69	51	49	54	56	61	47
11 P. Koli (a)	40	41	41	60	55	58	68	61	58	66		81	64	67	51	52	52	56	63	48
12 P. Koli (b)	42	46	48	61	61	61	72	65	62	66	81		64	73	55	52	60	57	66	50
13 W. Koli	39	36	35	50	46	49	56	53	59	72	64	64		78	45	45	50	52	63	44
14 T. Koli	40	38	39	51	51	50	62	56	56	69	67	73	78		47	47	53	54	66	46
15 Odki (a)	47	55	58	61	60	67	59	63	53	51	51	55	45	47		79	79	56	47	55
16 Odki (b)	46	45	52	57	55	59	56	61	52	49	52	52	45	47	79		71	56	48	51
17 Odki (c)	49	53	53	64	59	65	63	66	55	54	52	60	50	53	79	71		57	53	56
18 Bagri	53	43	44	54	49	57	58	61	59	56	56	57	52	54	56	56	57		51	58
19 Vaghri	36	35	33	49	48	53	63	53	54	61	63	66	63	66	47	48	53	51		41
20 Sansi	62	47	51	54	54	54	50	57	58	47	48	50	44	46	55	51	56	58	41	

H - CONCLUSIONS

The conclusions are divided into three areas : some general conclusions, some specific conclusions about each of the languages and an overview of the phonological systems of the languages.

1 - General Conclusions

It is difficult to see any clear pattern of language relationship and development emerging from the lexico-statistical results. In many language situations of the world it is possible to group languages together and diagram a 'tree-type' relationship showing their development. Dr. Ken Smith (1972) has developed an automatic typewriter assist programme for comparative linguists in relation to 30 Mon-Khmer languages, and has drawn up a tree-diagram on the basis of the results in order to show their relationship and development. A similar attempt was made with the results of this survey but the languages did not group together very easily. Dr. Smith concludes that "rather than giving neat tree-type divisions, they form a chain of relationships."

However, when we take into account the sociolinguistic factors behind the development of the tribal languages - origin, length of exposure to other languages and mobility - it is not surprising that this is the case.

We can, however, make some specific comment about the languages in the survey and these are now given.

2 - Specific conclusions

These conclusions are based partly on the survey questionnair but mainly on the two charts showing lexico-statistical comparisons between the languages, especially the Weighted Percentage in Chart 2. It is difficult to set an arbitrary percentage figure at which it is felt a dialect of a language can be regarded as a language in its own right. However, we would tentatively suggest that this borderline may be around 80 percent for the look-alike percentages and 70 percent for the weighted percentages.

(i) It is clear that none of the languages with the possible exception of Sansi show any close relationship with Urdu. Interestingly, after Bagri, the next closest language to Urdu is Gujarati which is certainly regarded as a language in its own right.

(ii) The closest language to Sindhi is Siraiki. As mentioned, we are not sure whether the data we have recorded represents Sindhi Siraiki or Siraiki proper. Certainly, Shackle (1976) regards Siraiki as being a separate language in its own right.

(iii) If Grierson is correct, and Dhatki is a mixture of Sindhi and Marwari, then it would appear from our results that it is considerably closer to Marwari than to Sindhi. The two lists we have recorded in Dhatki are certainly related dialects of the same language and it is interesting that the list recorded from the Thar (No.4.)seems to almost always score slightly higher than the other list (originating from Rajasthan some 13 years ago) against all the other languages (as we would expect).

Dhatki seems to be fairly closely related to all three Marwari lists and careful comprehension tests need to be made to ascertain whether they should be regarded as related dialects or separate languages.

(iv) The three Marwari lists are clearly related to each other but the survey results show that there is a considerable variation of dialect within the Marwari spoken by the Hindu tribal people in Sind.

Marwari seems to be closer to Parkari Koli than the other Koli languages and we would expect this because of geographical origin.

(v) The hypothesis that the Koli groups speak Gujarati (or at least a dialect of it) seems to be disproved by the results of this survey. Gujarati is only slightly closer to the Koli languages than the others and they cannot be regarded as dialects of Gujarati. It is likely that, with more Koli young people becoming literate in Sindhi, Sindhi will have an increasing influence on the Koli languages.

(vi) Of the Koli languages, there seem to be two clear groupings:-

Parkari Koli seems to be a language in its own right with some variation of dialect shown betwen the two lists.

Kachi Koli, Wadiyara Koli and Tharadari Koli seem to be closely related, with the latter two somewhat closer to each other than to Kachi Koli. Again, comprehension-testing is needed to determine actual understanding between the three language groups.

(vii) The three lists in Od seem to reflect the same language with some dialectal variation. They are closer to Sindhi/Dhatki/Marwari than to Gujarati and the Koli languages.

(viii) Bagri does not seem to be very close to any of the other languages and further information and data from other Bagri speakers is needed to check this out.

(ix) Similarly, Vaghri seems also to be a language in its own right although it is closer to the Koli languages than any of the others.

(x) As mentioned, Sansi is closest to Urdu and again more information is needed as to the extent of the languages and consistency between various speakers and locations.

Finally, our impression from the questions asked about language attitudes from our informants and other tribal people would seem to indicate that the most common and preferred second language is, for most of them, Sindhi. Some of the older Koli people still regard Gujarati as their literary language but this seems to be on the decline as the younger people are educated in Sindhi.

3 - The Phonological system of the languages

(For an excellent overview of the phonological features of the languages of the Indian subcontinent, see Ramanujan & Masica 1965).

Chart 3 shows an inventory of the consonants used by the languages in the survey, while Chart 4 gives a similar inventory for the vowels plus some comments on the suprasegmental features. Some comments of interest are now given:-

(i) Apart from Urdu and Gujarati, all the languages have at least some of the implosives which are characteristic of Sindhi. Further, several of the Koli languages seem to have a dental implosive which is not found in Sindhi. It is clear from this that the Sindhi alphabet is the most adequate alphabet to represent any of the tribal languages.

(ii) The velar fricatives only appear in Sindhi apart from [x] which occurs in Marwari and seems to fluctuate with [ç].

(iii) A retroflexed lateral is found particularly in Marwari and also in some of the Koli data. As this is not found in Sindhi, a new symbol is needed to represent it in the Sindhi script.

(iv) Sindhi would seem to be the only language which has a system where every word ends in a vowel. It is our impression that these vowels in Sindhi are very light and tend to drop out in the fast speech.

(v) All the languages had nasalization of vowels. When these occurred before a plosive (in fast speech) the nasalization seemed to lessen and be replaced by a homorganic nasal consonant.

(vi) In Marwari, Kachi Koli and Wadiyara Koli, [s] and [z] tend to fluctuate with the affricates [ts] and [dz] respectively.

(vii) The palatal nasal and the palatal affrictae implosive were not found in the data. However, they are included on Chart 3 because they do occur rather infrequently in Sindhi (and not in our particular data). We are not sure if they occur in any of the tribal languages.

CHART 3 - A PHONOLOGICAL OVERVIEW : CONSONANTS

		LABIAL	DENTAL	RETROFLEXED	PALATAL	VELAR	GLOTTAL
PLOSIVE VOICELESS	unaspirated	p	t̪	ʈ	t͡ʃ	k	
	aspirated	pʰ	t̪ʰ	ʈʰ	t͡ʃʰ	kʰ	
PLOSIVE VOICED	unaspirated	b	d̪	ɖ	d͡ʒ	g	
	aspirated	bʱ	d̪ʱ	ɖʱ	d͡ʒʱ	gʱ	
IMPOSIVE	(voiced)	ɓ	ɗ̪	ᶑ	ʄ͡ʒ	ɠ	
NASAL	(voiced)	m	n	ɳ	ɲ	ŋ	
FRICATIVE	(voiced)	f	s		ʃ ç~	x	h
	(voiceless)		z			ɣ	
LATERAL	(voiced)		l	ɭ			
VIBRANT	(voiced)		ɾ	ɽ			
SEMI-VOWEL	(voiced)	ʋ			j		

NOTES

a. all sounds are made with egressive lung air with the exception of the implosives.

b. strictly speaking a "voiced aspirate' is an impossibility and the term "murmured" has been used for "aspirate".

c. the sounds listed under palatal plosive are actually affricates but they function like plosives in all these languages.

d. [ɾ] is a single tap but can be several taps. Voiceless [ɾ̥] sometimes occurs word-finally.

e. Lengthened consonants are shown by a colon after the consonant - e.g. [b:]

(For an excellent account for the articulation of the implosives see Nihalani, 1972)

Symbols used are those of the International Phonetic Association (revised up to 1979)

CHART 4 - A PHONOLOGICAL OVERVIEW : VOWELS

	FRONT (unrounded)	CENTRAL (unrounded)	BACK (rounded)
CLOSE	i ɩ		ɷ u
HALF-CLOSE	e		o
HALF-OPEN	ɛ	ʌ	ɔ
OPEN		a	

Glides $ʌ^{ɩ}$, $ʌ^{ɷ}$

All vowels can be nasalized - marked with a tilde, e.g. [ɛ̃]

NOTES a. vowel length, where clear, is marked with a colon following the vowel, e.g. [e:] However, it is difficult to mark consistently without making check-lists. In general, the vowels [ɩ], [ʌ] and [ɷ] were shorter than the other vowels.

b. The vowel marked as [ʌ] is not as the IPA symbol but represents a central unrounded vowel which is between OPEN and CLOSE, but closer to OPEN

c. Word-final weak Sindhi vowels are written with the vowel raised, e.g. [$ʌk^{hɩ}$] 'eye'

d. All vowels are made with egressive lung-air.

Suprasegmental features

None of the languages has phonemic word or syllable-tone so pitch has not been marked on individual words. With longer utterances, only Section H has some intonation recorded. This showed that most of the languages had the characteristic intonation contour with content questions, where the question word (utterance medial) carries high pitch and stress, after which the pitch of the coda falls away. We found great difficulty in defining word-stress and it has not, therefore, been recorded. We suspect it is non-phonemic (i.e. predictable) in most of the languages. See Khubchandani (1962) for the rules with which stress can be predicted in Sindhi. A similar system works for Urdu and possibly the other languages in this survey.

I - Recommendations of the Survey

We recommend that further detailed linguistic investigation be made into the following tribal languages along with other language-related programmes.

Dhatki or Marwari
Parkari Koli
One of Kachi Koli, Wadiyara Koli or Tharadari Koli
Odki

plus possibly Siraiki in northern Sind and southern Punjab.

Further investigation may prove that research into Bagri, Vaghri and Sansi may be worthwhile.

Later intelligibility testing between Dhatki and Marwari may prove that they are clearly separate and that further research is needed in both. Similar results may also be found with the three Koli languages.

J - Comments

The authors welcome comments and relevant information about the subject matter of the survey from other interested persons. The data on which the survey results are based is also available at the address below:-

Language Project, Karachi Diocese,
53B Liaquat Road,
Civil Lines,
HYDERABAD,
Sind,
Pakistan.

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A PRELIMINARY SURVEY OF THE LANGUAGES OF SIND, PAKISTAN 1980

DATA SUPPLEMENT

Ron + Gail Trail

A PRELIMINARY SURVEY OF THE LANGUAGES OF SIND, PAKISTAN

DATA SUPPLEMENT

page no.

INTRODUCTION

This supplement lists all the data on which the survey report ' A Preliminary Survey of the Languages of Sind, Pakistan' is based.

Each of the 22 lists is shown in parallel columns for each data item so that they can easily be compared. The supplement gives the 20 lists described in the survey report with the addition of data from Makrani and Brahui which were collected from speakers resident in Sind [details below]. These two lists are included for interest only as Makrani belongs to a different section of the Indo-Aryan language-family, while Brahui belongs to a different language-family altogether [Dravidian]. It is probable that the speakers of these languages in Sind have been influenced to some degree in their speech by reason of their residence in Sind [both languages are native to Baluchistan].

Section A, Word List, includes data from all the 22 lists whereas the later sections are incomplete for some of the lists.

List 2 [Sindhi] combines two closely related dialects. The standard central Sindhi is given first and, where the list elicited in northern Sind [Hindu informant] differs, it is shown after the sign / .

Similarly, List I2 [Parkari Koli] also combines two lists, one from Kunri and one from Mirpur Khas. The Kunri list is given and, if the Mirpur Khas list differs, it is shown after the sign / .

Where a list has more than one item for a word or phrase, these are shown after a semi-colon.

The sign / is also used within a word to give a phonetic alternant e.g. [ma$_{/ʌ}$n].

A sign ? after a data item indicates that there is some doubt about whether it is the correct semantic equivalent.

There is some arbitrariness about the assigning of clitics and verbal morphemes to the preceding word : in some cases they are written as separate words.

PHONETIC COMMENTS ON THE DATA OF THIS SUPPLEMENT

General comments on the phonetic data in this survey, along with a phonological overview for consonants and vowels, are given in the survey report ['A Preliminary Survey of the Languages of Sind, Pakistan'] pages 45–48.

The phonetic data used is displayed on the charts given in the survey [pages 46 and 47] with the addition of the following symbols found in Lists 2I and 22, Makrani and Brahui.

[ɬ] a voiceless lateral fricative with egressive lung air

[đ] a voiced inter–dental fricative with egressive lung air

In addition to these two symbols, an attempt has also been made to mark vowel length for these two lists [e.g. eː, aː] which has not been marked for the other twenty lists. However, where vowel length for the lists seemed to indicate two syllables, two vowels are marked [e.g. dee].

The symbols of the International Phonetic Association have been somewhat modified in the data[owing to typewriter limitations]as follows:

Retroflexed consonants are indicated with a subscript dot. e.g. [ḍ], [ṭ], [ṛ] etc.

Implosive consonants are indicated by [ɓ] [ɗ̪] [ᶑ] and [ɠ]

The dental implosive [ɗ̪] was in many instances difficult to identify from the retroflexed implosive [ᶑ]. In these instances where the point of articulation was not clear, the implosive is marked as simply [ɗ].

Affricates and aspirated consonants are marked without ligatures or raised [h] even though they function in most of the languages as unit consonants.

[r] represents the voiced dental/alveolar vibrant. IPA[ɾ]

Where [s] [z] [n] and [l] are unmarked [i.e. not dental or retroflexed] then they are dental/alveolar in point of articulation.

[v] represents a labio–dental semi–vowel [not fricative though it does have slight friction]. IPA [ʋ].

DETAILS OF QUESTIONNAIRE FOR MAKRANI AND BRAHUI

21. MAKRANI Language spoken mainly in southern Baluchistan though enclaves found also in Sind. Data elicited in Kunri from Michael Lab Baksh, a man in his thirties. His family has resided in Kunri for about thirty years; before this they lived in Iran. He also speaks Baluchi and Farsi as well as some Sindhi, Urdu and Punjabi.

22. BRAHUI This Dravidian language is located in Baluchistan in the central highlands and spoken by around a quarter of a million people. It also has numbers of speakers who have migrated to Sind , especially in northern Sind. The data in this survey was recorded from Ali Madad [age 35] and Abdul Rehman [in his twenties] at Shikarpur. They belong to the Rashkani caste of the Brahuis and have lived in Shikarpur for 50 years. Before this they lived in Noshke in Baluchistan. Ali Madad has had five years of schooling while Abdul Rehman has had ten years. They also both speak or understand some Sindhi, Urdu, Baluchi and Pushtu.

For further details on Brahui,see M.B. Emeneau 'Phonetic Observations on the Brahui Language ' [BSOAS 8:4, 1937] and various works by Denys de S. Bray from 1909 onwards.

Two factors should be borne in mind when considering the data given here for Brahui and Makrani. One is that the speakers who gave the data have lived in Sind for many years and have thus been influenced by other languages, especially Sindhi [e.g. the presence of word-initial [ɓ] in Brahui]. The second factor, and this applies particularly to Brahui, is that the authors of this survey have been working almost exclusively in languages belonging to the Indic section of the Indo-Aryan language family and have been influenced by this to some degree in their phonetic recording. The data in these two languages should thus be read more for the general lexicon rather than for fine phonetic detail.

INDEX OF LANGUAGES IN THE LISTS

I. URDU

2. SINDHI [STANDARD] / HINDU [NORTHERN]

3. SIRAIKI

4. DHATKI [THAR]

5. DHATKI [RAJASTHAN]

6. MARWARI [MEGHWAR, JAISELMER]

7. MARWARI BHIL

8. MARWARI BHIL [JODHPUR]

9. GUJARATI

I0. KACHI KOLI

II. PARKARI KOLI [NAGAR PARKAR]

I2. PARKARI KOLI [KUNRI/MIRPUR KHAS]

I3. WADIYARA KOLI

I4. THARADARI KOLI

I5. ODKI [DADU]

I6. ODKI [SHIKARPUR]

I7. ODKI [PITHORO]

I8. BAGRI

I9. VAGHRI

20. SANSI

2I. MAKRANI

22. BRAHUI

SECTION A : WORD LIST

See 'A Preliminary Survey of the Languages of Sind, Pakistan'

page I7 : general comments on word list

page I8 : relationship of word list to Swadesh List

pages I9 and 20 : comments on specific words

pages 36 to 39 : lexico-statistical charts based on word lists

The full list of words is given on page I8 of the Survey Report

	I. eye	2. ear	3. finger	4. nose
I.	ãkh	kan	ũŋgli	nak
2.	ʌkhʿ	kʌn°	aŋorʿ/ãŋgur	nʌk°
3.	ʌkh	kʌn	ʌŋgʌl	nʌk
4.	ʌkh	kʌn	ʌŋgʌḷi	nʌk
5.	ʌ̃kh	kʌn	ʌŋg^ḷi	nʌk
6.	ãkh	kan	aŋgʌṛi	nak
7.	ãkh	kon	aŋguḷi	nak
8.	ãkh	kan	ʌŋgʌḷi	nak
9.	ãkh	kan	ãŋg^ṛi	nak
IO.	ãtʃ	kan	ãŋgri	nak
II.	õkh	kon	aŋgʌri	nak
I2.	õkh	kon	õŋgli /ʌŋgʌḷi	nak
I3.	ãkh	kan	aŋgʌli	nak
I4.	õtʃh	kon	ãgḷi	nak
I5.	ãkh	kan	aŋg[e]ṛi	nak
I6.	ãŋkh	kan	ʌŋgʌṛi	nak
I7.	ãkh	kan	ʌŋgʌḷi	nak
I8.	ãkh	kan	aŋgʌli	nak
I9.	õʃ	kon	oŋḷi	nak
20.	akh	kan	aŋgʌḷ	nak
2I.	tʃʌm	go:ʃ	tʃʌŋgul	põ:d
22.	xʌn	xʌf	or	bamus

	5. tooth	6. tongue	7. hair	8. knee
I.	d̪ãt̪	zʌban	bal	ghuṭna
2.	ɖʌ̃nd̪ᵒ	zʌban / dʒɩbh zɩban	var^ʌ	goɖo
3.	ɖʌnd̪	zɩban	val	goḍa
4.	d̪ʌnt̪	dʒɩban	mʌt̪hvar	goɖo
5.	ɖʌ̃nt̪	dʒɩban	mʌt̪hvar	goɖo
6.	d̪ãt̪	dʒiban	baṛ	goɖo
7.	ɖãt̪	zib	mʌt̪hvar	god̪o
8.	ɖãt̪	dʒɩban	baḷ	goɖo
9.	d̪ãt̪	dʒibh	vaṛ	ghũṭʌ̃ṇ
IO.	d̪ãt̪	zib	bal;muvarʌ	guḍo
II.	d̪õt̪	dʒiB^ʌ	mʌt̪hvar	goɖo
I2.	d̪õt̪	dʒib / dʒibh	mʌthvar	goḍo
I3.	d̪ãt̪	zib	Bal	guɖo
I4.	d̪õt̪	z̪ib	Bal	guɖʌ
I5.	ɖãt̪	dʒɩb	tʃũṇẽ	goɖa
I6.	ɖãt̪	zɩban	tʃũṇĩ	goḍa
I7.	d̪ãt̪	dʒɩban	tʃũṇẽ	goɖa
I8.	ɖãt̪	dʒib	khex	guṭʌṇʌ
I9.	d̪õt̪	zib	tʃe	goɖo
20.	d̪ãt̪	dʒib	baḷ	goɖa
2I.	d̪ʌnt̪ãn	zɩban	mu:d̪	koṇḍ
22.	d̪ʌnãŋk	d̪uvi	puʒʌ	goɖʌ

	9. bone	10. blood	11. skin	12. flesh
1.	hʌḍ:i	xun	khal; dʒɩlḍ	goʃṭ
2.	hʌḍo	rʌṭ^o	tʃʌmṛi	goʃt^ʌ / mas^o
3.	hʌḍa	rʌṭ	khʌl	gosṭ
4.	hʌḍi	lohi	tʃambṛi	mas
5.	hʌḍ̈i	rʌṭ	tʃɩmṛi	mas
6.	hʌḍ̈i	rʌṭ	tʃʌmṛi	mãs
7.	haḍko	loi	sombṛi	mõhõ
8.	haḍkhi	lohi	tʃambṛi	max
9.	haḍku	rʌkṭ; khũn	tʃamṛi	mãs
10.	haḍkõ	loi	tsambṛo	mã
11.	haḍko	loi	sõmbṛi	mõh
12.	haḍkʌ^i / haḍkhi	loi	sombṛo /–i	mõh
13.	haḍkõ	loi	sãmbṛi	mãs
14.	haḍkõ	loi	sãbṛõ	mãhʌ
15.	hʌḍ̈e	rʌṭ	tʃʌmṛi	heṛe
16.	hʌḍ̈e	luhi	khal	heṛe
17.	hʌḍʌk	rʌṭ	tʃãmbʌṛ	heṛe
18.	haḍko	lohi	tʃamṛo	boṭi
19.	maḷ	loi	sombṛu	mah
20.	haḍ̈	rʌṭ	khal	bʌṭki
21.	hʌḍ	xun	po:ṣṭ	goʃt
22.	hʌḍ	ḍɩṭʌr	sɩḷ	sul

	13. mouth	14. hand	15. foot	16. man
1.	mũ	hat̪h	per; paõ	aḍmi
2.	vat̪°	hʌt̪h°	per°	maṇhu/ maṇũ
3.	vat̪	hʌt̪h	per	maṇhu
4.	moho	hʌt̪h	pʌg	maṛhu
5.	mũ	hʌt̪h	pʌg	maṛu
6.	mã[n]ɗo	hat̪h	pʌgh	maṇʌxʌ
7.	moɗ̣o	hat̪h	pʌg	mʌnkʌ
8.	maɗ̣o	hat̪h	pʌg	mɩnʌkh
9.	mɔ̃	hat̪h	pʌg	maṇʌs
10.	moḍõ	hat̪h	pʌg^ʌ	maṇʌ/ aḍmi
11.	kaɓo ?	hat̪h	pʌg	aḍmi
12.	moḍo	hat̪h	pʌg	mõṇe
13.	moḍhõ	at̪h	pʌg	aḍmi
14.	mũḍhõ	hat̪h	pʌg	aḍmi
15.	ɓaka	hat̪h	pʌg	maṇʌs
16.	ɓaka	hat̪h	pʌg	maṇʌs
17.	ɓaka	hat̪h	pʌg	mʌrḍ̪ʌ
18.	ɓako	hat̪h	goḍo	aḍmi
19.	mũɗ̣u	hat̪h	pʌg	vɩ/erto
20.	mõ	hat̪h	pãũ	aḍmi
21.	ḏaph	ḏast̪	pa:ḏ	mʌrḏom
22.	ba	tʃʌmba	nʌt̪ [na tʃʌmba] |	bʌndʌɣ

	I7. woman	I8. boy	I9. girl	20. baby
I.	ɔrʌṭ	lʌṛka	lʌṛki	bʌtʃ:a
2.	ʌ°rʌṭ^/ orʌṭ^	tʃhokʿro	tʃhokʿri; niŋgri	Bar°/ kako, -i
3.	zʌⁱfa	tʃhokra	tʃhokri	Bal
4.	lugaj	tʃhokro	niŋgri	Baḷ
5.	lugaj	tʃhokro	nɩŋgri	Baḷ
6.	lugaj	tʃhokro	tʃhokri	Baṛ/ḷ
7.	lugaj	tʃokro	tʃokri	Baṛ
8.	lugaj	tʃhokro	tʃhokri	Baḷjo
9.	bʌjri	tʃhokro	tʃhokri	baṛʌk
I0.	Bajṛi	sokro	sokri	gʌgo,-i
II.	ḍoʃi	sokra	sokri	Baḷ
I2.	doʃi/ ʌʃɩtʌri	sokro	sokṛʌⁱ/sokri	Baḷ
I3.	Bʌjrõ	sokra	sokri; soṛi	sokrõ
I4.	Bajrõ	sokro	soṛi	hauḍʌ
I5.	tʃaṛe	tʃhohʌr	dhu; tʃhohɩṛi	Baṛ
I6.	gotʃi	tʃhohor	tʃhohori	ḍhãkṛe
I7.	ʌsṭri	tʃhorṛe	tʃhorṛi	as boy, girl
I8.	bavʌṇ	tʃhoro	tʃhori	ṭabʌr
I9.	ʌsṭri	sijo	sori	sorũ
20.	Baer	tʃhora	tʃhori	ṭabʌr
2I.	dʒʌɲe:ɲ	bʌtʃʌk	dʒʌnek; ḍoṭhʌr	nunok
22.	zalbul	marko	mʌsɩr	tʃuna

	21. father	22. mother	23. name	24. cat
1.	bap; valɩḏ	mã; valɩḏa	nam	bɩl:i
2.	pi°; baba/pɩṯa	ma^; ʌma/ maṯa	nalo	ɓɩl:i
3.	piu	ma	nala	ɓɩli
4.	pɩṯa	ʌm:a	nõ	ɓɩl:i
5.	ɓap	ʌma	na	ɓɩli
6.	pɩṯa	maṯa	nã	ɓɩli
7.	bap	ma	nom	ɓɩli
8.	babo	ma	na	ɓɩl:i
9.	bap; pɩṯa	mã	nam	bɩlaɽi
10.	ɓa	ma	nam	mʌni
11.	ɓap	mã	nõm	minʌɽʌ^i
12.	bap/ ɓap	mã	nom	minʌɽʌ^i/ minɽi
13.	ɓa	ma	nam	mʌnaɽi
14.	ɓa	ma	nom	mʌnaɽi
15.	ɓa	a[j]i	na	ɓɩli
16.	ɓava	aj	nam	bɩli
17.	baba	mau	na	ɓɩli
18.	ago	jaj	nam	bɩl:i
19.	ɓapu	mau	nom	meni
20.	ɓap	ma	nam	bɩlav
21.	peṯh	maṯh	nam	pɩʃi
22.	bava	lum:a	pɩn	pɩʃi

	25. dog	26. goat	27. cow	28. buffalo
I.	ḳot̪:a	bʌkri	gae	bhε̃s
2.	kut̪o	Ɓʌkri	ɠʌ̃ũ; ḍhʌɠi	mẽhĩ
3.	kut̪a	Ɓʌkri	ɠãũ	mẽh
4.	kut̪o	tʃhaḷi	ga	mẽs
5.	kut̪o	tʃhaḷi	ga	mẽs
6.	kut̪o	bʌkri	ga	bhẽx
7.	kut̪o	Ɓʌkri	gaj; ḍhʌgi	bhẽhẽ
8.	kot̪o	Ɓʌkri	ga	bex
9.	kot̪ro	bʌkri	gaj	bhẽs
I0.	kut̪riõ	bʌkri	gaj	bhẽʃ
II.	kut̪ra	Ɓʌkrʌ^i	gaj; gõĩ	bhẽh
I2.	kut̪ro	Ɓakrʌ^i/ bakri	gaj	bhεh/ bhe/ε
I3.	kutro	Ɓʌkri	ɠaj	bẽʃ
I4.	kutro	Ɓʌkri	ɠaj	bhẽs
I5.	kotra	Ɓakri	ga	bhẽs
I6.	kut̪ra	Ɓakri	ga	bhẽs
I7.	kut̪a	Ɓʌkra	ḍhʌgi	bhẽs
I8.	lũḍijo	bakri	gãj	bhex
I9.	kutrũ	Ɓakri	gae	bhe
20.	kut̪a	tʃheḷi	ga	bhãĩs
2I.	kotʃhε/ι k; ʂʌg	ʃenιk	go:kh	ga:meʃ
22.	kutʃʌk	et̪h	ḍʌgi	mehi

	29. camel	30. rat	31. ox	32. horn
I.	ũṭ-	tʃuha	bɛl	sĩ[ɳ]g
2.	oṭh^{o}	kuo	ḍhʌĝo/ ɗand^{o}	sɪŋ^{o}/ sɪŋg$^{\wedge}$
3.	uṭh	kua	ɗanḍ	sɪŋʌ
4.	ũṭh	unḍro	ḍhʌgo	sĩg
5.	oṭh	ũɗʌr	ḍhʌgo	sĩg
6.	ũṭh	unḍro	ɓʌrʌḍ	hĩg
7.	oṭh	undro	ḍhʌgo	hiŋgṛo
8.	ũṭh	ũɗʌr	ɓʌḷʌḍh	xiŋg$^{\wedge}$
9.	ũṭ	ũnḍʌr	bʌṛʌɗ	ʃĩŋg
I0.	hãḍijo	ẽ[ɳ]ḍoro	ɓʌr$^{\wedge}$ḍ	ʃiŋgṛõ
II.	ũṭh	unḍro	ɓʌḷʌḍh	ʃĩŋgṛo
I2.	ũṭh	unḍro	ḍhʌgo	ʃiŋgṛa
I3.	õṭh	ũḍejṛo	ḍhago; ɓʌṛʌɗ	ʃẽgṛõ
I4.	ũṭ	unḍrʌ	ḍhago	ʃẽgṛõ
I5.	ũṭh	ũɗʌr	ɗãḍ	sĩg
I6.	ũṭ	unɗʌr	ɗanḍ	sĩŋg
I7.	ũṭh	ũnḍʌr	ḍhʌga	sĩg
I8.	õṭ	unḍro	ḍhãnḍho	ʃiŋgṛõ
I9.	ũṭ	ũḍro	ḍhõḍho	ʃ/s ẽgṛo
20.	ũṭ	musa	bʌḷʌḍh	sĩŋg
2I.	uʃṭɪr	moʃk	go:kh	ʃa:
22.	utʃh	muʃk	xʌra:s	mʌrʌɣ

	33. tail	34. bird	35. crow	36. parrot
I.	dom	pʌrɩnḏa	kʌva	t̪ot̪a
2.	potʃh°	pʌkhi	kãv°/ kã°	t̪ot̪o; tʃʌt̪ũ
3.	putʃhʌ	pʌkhi	kã	t̪ot̪a
4.	pũtʃh	pʌkhi	haḍo ?	tʃʌt̪ũ
5.	pũtʃh	pʌkhi	had̤o	tʃʌt̪u
6.	pũtʃh	pʌkhi	had̤o	tʃʌt̪ũ
7.	pũsṛo	pʌkhi	haḍo	tʃʌt̪ũ
8.	pũtʃhṛi	pʌkhi	had̤o	t̪ot̪o
9.	pũtʃhḍi	pʌ̃ŋkhi	kagḍo	popʌṭ
IO.	pũsrõ	pʌkhi	kagṛo	popʌṭ
II.	pũsṛo	dʒivro	haḍo	huṛlo
I2.	pusṛo/ pũtsṛi	pʌkhi	had̤o/ haḍo	popʌṭ
I3.	põtsṛõ	zenavʌr?	haḍijo	popʌṭ
I4.	pũsṛõ	pʌkhi; pʌŋkhi	had̤ijʌ	popʌṭ
I5.	pũtʃhṛi	pʌkhi	kag	tʃʌt̪ũ
I6.	pũtʃhʌṛ	pʌkhi	kag	tʃʌt̪ũ
I7.	pũtʃh	pʌkhi	hʌd̤a	tʃʌt̪ũ
I8.	putʃhro	pʌkhi	kagṛo	t̪ot̪o
I9.	pũsṛu	zenavʌr?	had̤o	hut̪io
20.	pũtʃh	pʌkhi	kag	t̪ot̪a
2I.	ḏomb	pʌrɩnḏa	kãːŋgi	mɩṭhu
22.	lɩṭɩk	tʃok	kayo	t̪ot̪a

	37. egg	38. feather	39. snake	40. ant
I.	ʌṇḍa	pʌr	sãp	tʃiũṭi
2.	ano; beḍo	khʌ̃mbh°	nãg°	makoṛi/mʌkoṛi; kɩvli
3.	ana	khʌmbhʌ	nãgʌ	kevli
4.	ĩḍo	pʌ̃kh ; pãkh?	sʌrʌp	kiṛi
5.	ĩ[ṇ]ḍo	pʌ̃kh	nag	kiṛi
6.	iṇḍo	pãŋkh	hãp	kiṛi
7.	ĩṇḍo	põkh	nãŋg	kiṛi
8.	ĩḍo	pãkh	luṇḍʌ	kiṛi
9.	ĩṇḍu	pʌŋkh	sãp	kiṛi
IO.	ẽḍõ	pĩkhnã	hap	tʃiṛi
II.	iṇḍo	pĩŋkh	hap; nag	kiṛi
I2.	iṇḍo	pĩkhṛo	hap	kiṛʌ^i/ kiṛi
I3.	ẽḍu	pekhṛõ	hʌrʌp	tʃiṛi
I4.	ẽḍũ	põkhṛõ	hap	tʃiṛi
I5.	ĩḍe	kʌmbhʌṛ	nag	kiṛi
I6.	inḍe	pãŋkh	nag	kiṛi
I7.	ĩḍe	pʌ̃kh	[nag] bʌla	kiṛi
I8.	ɩṇḍõ	pãkhṛõ	hap	kiṛi
I9.	ẽḍu	põkhṛu	hap	tʃiṛi
20.	ano	pʌkh	sap	kiṛi
2I.	haɩk	ba:l	ma:r	mu:r
22.	x^u ae	pʌrʌ	ḍuʃʌ	morĩŋk

	4I. fly	42. mosquito	43. louse	44. fish
I.	mʌkh:i	mʌtʃh:ʌr	dʒu	mʌtʃhli
2.	mʌkhi/ mʌkh:e	mʌtʃhʌr^{o}	dʒũ	mʌtʃhi
3.	mʌkhi	mʌtʃhʌr	dʒũ	mʌtʃhi
4.	mʌkhi	mʌtʃhʌr	dʒũ	mʌtʃhi
5.	mʌkh	mʌtʃhʌr	dʒũ	mʌtʃhi
6.	makhi	mʌtʃhʌr	dʒũ	mʌtʃhi
7.	makhi	mʌtʃhʌr	dʒũ	mʌtʃhi
8.	makhi	matʃhʌr	dʒũ	mʌtʃhi
9.	makh	mʌtʃhʌr	dʒũ	matʃhli
I0.	matʃhi	mʌsʌr	zũ	maʃlõ
II.	makhʌ^{i}	mʌsʌr	zũ	mʌsʌ^{i}
I2.	makhʌ^{i}	mʌsʌr	zũ/ dzũ	mʌsʌ^{i}
I3.	mãʃ	ðʌho	zu	mʌtʃhi
I4.	matʃhi	ḍõhõ	ʐu	mʌsi
I5.	makhi	matʃhʌr	dʒũ	matʃhʌṛi
I6.	makhi	matʃhʌr	ḍhekʌr	matʃhṛi
I7.	makhi	matʃhʌr	dʒũ	matʃhʌṛi
I8.	mʌkhõ	mʌtʃhʌr	ṭokʌl	mʌtʃhi
I9.	matʃhi	mʌsʌr	ṭokʌḷ	mʌsi
20.	makhi	matʃhʌr	dʒu	mʌtʃhi
2I.	a:ʂʌl	mʌkes̪k	bo:ṭh	mʌtʃhi
22.	iđ	pʌʃʌ	Buɽ	mʌtʃi

	45. sun	46. moon	47. star	48. sky
I.	surʌdʒ	tʃand̪	set̪ara; t̪ara	asman
2.	sɩdʒ°	tʃʌ̃nd̪^{ʌ};tʃand^{r}ʌ	t̪aro	asman°
3.	sɩdʒhʌ	tʃʌnd̪rʌ	t̪ari	ʌsman
4.	surdʒ; d̪ehe	tʃand̪ʌr	t̪aro	asman
5.	d̪ɪ	tʃɩnd̪ʌr	t̪aro	asman
6.	hurʌdʒ	tʃʌnd̪ʌr[ma]; tʃand̪	t̪ara	abho
7.	hurʌz	sand̪ʌr	t̪aro	asmon
8.	hurʌdʒ	tʃaŋd̪ʌ	t̪aro	ʌŋgax
9.	surʌdʒ	tʃʌnd̪rʌ	t̪aro	akaʃ
IO.	hurʌz	tsand̪o	t̪ara	ʌnkaʃ
II.	d̪i	ʌnzuvarijo	t̪aro	abh
I2.	d̪i	sʌnd̪ʌr	taro	akaʃ
I3.	surɩdʒ	sanda	t̪aro	akaʃ
I4.	d̪aɽo	sʌd̪ʌrmõ	taroɽijõ	abhũ
I5.	surʌdʒ	tʃand̪	t̪ara	asman
I6.	d̪io	tʃand̪	t̪ara	akaʃ
I7.	surʌdʒ	tʃʌnd̪ʌr	tara	asman; ʌla
I8.	hurdʒʌ	tʃãnʌni	t̪aro	axman
I9.	hurʌz	sʌnd̪ʌr	t̪aro	abhu
20.	surʌdʒ	tʃand̪	t̪ara	asman
2I.	ro:tʃh	ma	s[ɩ]t̪ara	asman
22.	d̪e	t̪ube	ɩst̪ar	asman

	49. water	50. rain	51. cloud	52. river
1.	pani	barɩʃ	baḍʌl	ḍʌrija
2.	paṇi	bʌrsaṭ$^{\iota}$	kʌkʌr^{o}	ḍʌrija[ho]; nʌḍi
3.	paṇi	mĩhʌ	dʒhoṛʌ	ḍʌrija
4.	pãṇĩ	mehe	kʌkʌr	nʌḍ̤i
5.	pãṇĩ	mi	seher	ḍʌri[h]a
6.	paṇi	bar[ʌ]s	kʌkʌr	nʌḍ̤i
7.	poṇi	mẽ	abo	nʌḍi
8.	paṇi	mehe	dʒhoṛ; baḍ̤ʌḷ	ḍʌrija
9.	paṇi	vʌrsaḍ	vaḍʌṛ	nʌḍi
10.	paṇi	mĩ	vaḍrõ	ḍʌrijo
11.	põṇi	mẽh	vaḍla	nʌḍi
12.	põṇi	mĩ/ mẽ	vaḍṛa/vaḍṛa	ḍʌrija/nʌḍi
13.	paṇi	me	vaḍlõ	nʌḍi
14.	põṇĩ	me	vaḍḷõ	ḍ̤ʌrija
15.	paṇi	mĩh	kʌkʌr	ḍʌrija
16.	paṇi	mĩ	dʒhoṛ	ḍʌrija
17.	paṇi	mĩ[h]	baḍḷẽ	ḍʌrija
18.	paṇi	mẽhe	vʌḍlo	ḍʌrija
19.	poṇi	mɩ	vaḍ̤ḷõ	nʌḍi; voḷo
20.	paṇi	bʌrsaṭ	dʒhoṛ	ḍɩrãv
21.	aph	haur	haurṣa	dʒuː/ɒː
22.	ḍ/ḍ̤ir	pɩr	dʒʌmʌr	ʃax

	53. wind	54. night	55. sand	56. sand
I.	hʌva	rat̪	ret̪	pʌt̪h:ʌr
2.	hʌva	rat̪ʿ	vari	pʌt̪hʌr°
3.	hʌva	rat	vari	pʌt̪hʌr
4.	va	rat̪	d̪huṛ ; vari	pʌt̪hʌr
5.	vajro	rat̪	d̪hur	baṭho
6.	bajro	rat̪	bejṛũ	baṭho
7.	vajro	rat̪	vari	ɓaṭho
8.	bajro	rat̪	beḷu	pʌt̪hʌr
9.	hʌva	rat̪	ret̪	pʌt̪hʌr
I0.	vajro	ratʃ	vari	paṇa
II.	vajro	rat̪	d̪huṛ	põṇõ
I2.	vajro	rat̪	vari /ret̪	põṇõ
I3.	vajro	rat̪	vari	pʌt̪hro
I4.	vajro	ratʃ	vari	pʌt̪hro
I5.	hʌva; bejra	rat̪	beṛu	pʌhãṇ
I6.	bajra	rat̪	ɓeḷũ	pat̪hʌr
I7.	bajra	rat̪	vari	pʌt̪hʌr
I8.	varo	rat̪	ret̪o	pʌt̪hʌr
I9.	vajro	rat̪	vari	baṭho
20.	hʌva	rat̪	ret̪	pʌt̪hʌr
2I.	guat̪h	ʃʌph	re:kh	ʂɩŋg
22.	t̪au	ʃam?	rek	xʌl

	57. fire	58. smoke	59. ash	60. seed
I.	ag	ḍhuã	rakh	bidʒ
2.	bah^{ɩ}	ḍũhõ	rʌkh^{ʌ}	Bɩdʒ^{o}
3.	bah^{ʌ}	ḍũhã	keri	Bɩdʒ
4.	dʒoṭ^{ʌ}	ḍũhõ	rakh	Bɩdʒ
5.	dʒoṭ	ḍũho	bani	Bɩdʒʌ
6.	ʌgni	ḍhũhõ	rakh	Bidʒ
7.	vahḍe	ḍũhõ	rakh	Biz
8.	baxʌḍe	ḍũhõ	rakh	Bidʒ
9.	ag	ḍhumaṛo	rakh	bidʒ
I0.	bʌrṭõ	ḍuhaṛo	ʃeli	biz
II.	ḍevṭa	ḍũhõ	ʃelʌ^{i}	Biz
I2.	ḍevṭa	ḍũvaṛo / ḍũhõ	ʃelʌ^{i}	Bɩdʒ/ Biz
I3.	ḍeṭva?	ḍhʌmaṛo	ʃeli	Biz
I4.	ḍevṭa	ḍhũhõ	ʃeli	Biẓ
I5.	dʒaxṭe	ḍũhã	rakh	Bidʒ
I6.	dʒakhṭe	ḍũhã	rakh	bedʒa
I7.	dʒagṭe	ḍhũã	rakh	Bidʒ
I8.	ag	ḍhũhõ	rakh	bɩdʒ^{ʌ}
I9.	vahʌḍɩ	ḍhohiro	rakh	Biz
20.	ag	ḍhũ	bubhʌḷ	bidʒ
2I.	a:ṣ; atʃhɩʃ	ḍuṭh	rakh; phuljar	bedʒ
22.	xaxʌr	mođ	poɣ	Bɩdʒ

	6I. tree	62. leaf	63. flower	64. grass
I.	d̪ʌrʌxt̪	pʌt̪:a	phul	ghas
2.	vʌṇ[o]	pʌn[o]	gol[o]	gah[o]
3.	vʌṇ[^]	pʌn[^]	gul[^]	gah[^]
4.	vʌṇʌ	pʌn	phul	khʌṛ
5.	vaṇʌ	pʌn	gol	gʌha
6.	bʌṇʌ	pan	gol	ghas
7.	vʌṇʌ	ponṛa	phulṛa	gaha
8.	bʌṇʌ	pan	phul	gaxʌ
9.	dʒhaḍ	pan; pand̪ṛu	phul	ghas
IO.	dzaṛkõ	pand̪ṛõ	phul	khʌṛ
II.	zaṛko	ponṛo	phulṛo	khʌṛ
I2.	vaṇʌ[i]/ vʌṇ	ponṛa	phulṛo / gol	gah/ gha
I3.	[d]zaṛkhõ	pãd̪hṛõ	phũlṛõ	sare
I4.	z̪aṛkõ	põnṛõ	phul	gahʌ
I5.	bʌṇʌ	pan	gol	khʌṛ
I6.	bʌṇʌ	pan	phul	khʌṛ
I7.	vʌṇʌ	pan	phulẽ	khʌṛ
I8.	vʌṇ[^]	pand̪rõ	phul	ghah[^]
I9.	zaṛhu	ponṛõ	gol	sar
20.	d̪ʌrkʌt̪	pan	phul	ghas
2I.	d̪ʌrʌtʃkh	pa:n	gol	khah
22.	d̪ʌrʌxt̪	pʌn	pol:ʌ	bae

	65. village	66. house	67. well	68. path
1.	gaõ	mʌkan; ghʌr	kuã	rʌsṭa; rasṭa
2.	ɠoṭh°	ghʌr°	khuh°	rʌsṭo
3.	ɠoṭh^ʌ	ghʌr	khu	ḍʌg^ʌ
4.	gã	ghʌr	ṭʌlho; khuh	vʌḍho; marg
5.	paṛo	ghʌr	ṭaḷho	marg
6.	gãõ	ghʌr	khu	rʌsṭo
7.	gõm	zũpṛõ; ghʌr	khu	rʌsṭo
8.	gã	ghʌr	khu	marʌg
9.	gamḍu	ghʌr	kuvo	rʌsṭo
10.	ḍʌ̃ŋgo	ghʌr, dzupṛõ	kuo	rʌsṭo; ghaṛu
11.	gam	ghʌr	veri	ʃ erṛo
12.	goṭh / ɓaraṛi	ghʌr	verʌ^i; veri	ʃerṛo/ ʃeḷḍo
13.	ɠam	ghʌr	kuo	marʌg; ghaṛu
14.	ɠom	ghʌr	kuʌ	ghaṛu
15.	gã	ghʌr	khu	ḍʌg
16.	gã	ghʌr	khu	tʃara
17.	gã	ghʌr	khui	rasṭa
18.	gamṛo	ghʌr	kuo	ɠanḍo
19.	ghomṛu	ghʌr	kuvo	rʌsṭo
20.	peṛa	ghʌr	kuva	ɓaṭ
21.	goṭh; ʃɛhɛr?	lo:g	tʃha:ṭ; tʃha	ra
22.	xʌlk	ura	ḍun	kʌsʌr

	69. door	70. plough	71. bangle	72. [finger] ring
1.	ḍʌrvaza	hʌl	tʃuṛi	ʌŋguṭhi
2.	ḍʌrvazo	hʌr°	tʃuṛi	tʃhʌlo; mõṇḍi
3.	ḍʌr^	hʌl	tʃuṛi	muṇḍri
4.	ḍʌr	hʌḷ	ɓɩlija	vĩṭi
5.	ḍʌr	hʌḷ^	tʃuṛi	bẽṭi
6.	ḍʌrvadʒo	hʌḷ	tʃuṛi	bĩṭi
7.	ḍʌrvazo	hʌḷ	ɓʌlija	vĩṭi
8.	ḍʌr;maŋgeṛo	hʌḷ	tʃuṛki	biṭi
9.	ḍʌrv/wadʒo	hʌṛ	bʌŋgḍ/ṛi	vĩṭi
10.	kʌmaṛ	hʌr	sũṛi	vĩṭi
11.	kʌmaṛ	hʌḷ	suṛkʌ^i	vĩṭʌ^i
12.	ḍhʌr/ ḍʌrvazo	haḷ/ hʌḷ	suṛkʌ^i	tʃʌlo; muṇḍhʌi/ tʃʌlo; mũḍhi
13.	kʌmaṛ	hʌḷ	suṛi	vẽṭi
14.	ḍhʌr	hʌḷʌ	suṛi[jʌ]	vẽṭi
15.	ḍʌr	hʌṛ	tʃuṛi	bĩṭi
16.	ḍʌr	hʌr	tʃuṛi	bĩṭi
17.	ḍʌr	hʌṛ	tʃuṛia	bĩṭi
18.	ḍʌr	hʌl	tʃuṛi	vĩṭi
19.	ḍʌrvazo	hʌḷ	suṛli	veṭi
20.	ḍʌr	hʌḷ	tʃuṛi	munḍḷi
21.	dʌrvaza	nʌŋgar	tʃuṛi	tʃhʌl:a
22.	ḍʌrga	lʌŋgar	baĩŋk	tʃʌlau

73. [uncooked] rice	74. salt	75. pepper	76. lentils
I. tʃavʌl	nʌmʌk	mɪrtʃ	d̪al
2. tʃãvʌr^	lũṇ^	mɪrtʃ^	d̪al^
3. tʃãvʌl	luṇ^	mɪrtʃ^	d̪al^
4. tʃãvʌr	lũṇ^	mɪrtʃ	ḍal
5. tʃavʌl	lũṇ	mɪri	ḍ̪aḷ
6. tʃãvʌr	luṇ	miri	ḍaṛ
7. tsavʌr	lũṇ	mʌrsa	ḍaḷ
8. tʃavʌl	luṇ	mɪrtʃʌ	ḍaḷ
9. tʃokha	miṭhu	mʌri	d̪aṛ
I0. tsoka	miṭhŏ	mʌrsa	ḍar
II. sokha	miṭho	mʌrsa	ḍaḷ
I2. sokha	lũṇ	mʌrsa	ḍaḷ
I3. soka	mẽṭhŏ	mʌrsã	d̪hal
I4. sokha	mẽṭhŏ	mʌrsa	ḍaḷe
I5. tʃavʌr	lũṇ	mɪrtʃa	d̪al
I6. bhʌṭ ?	lun	mɪrtʃ	d̪al
I7. tʃavʌṛ	lũṇ	mɪrtʃʌ	d̪al
I8. tʃavʌl	luṇ^	mʌrtʃ^	d̪al
I9. sokha	meṭhŭ	mʌrsu	ḍaḷ
20. tʃavʌḷ	luṇ	mɪrtʃ	d̪aḷ
2I. b[ʌ]rɪndʒ	vad	mɪrtʃ	dal
22. brɪndʒ	Be	pɪl:ʌ	d̪a:l

	77. flour	78. milk	79. mango	80. banana
I.	aṭa	ḏuḏh	am	kela
2.	ʌṭo	khir^{ʌ}	ʌmb^{o}	kelo; kevʌṛe dʒi phʌri
3.	ʌṭa	khir	ʌmb^{ʌ}	kevṛa
4.	ʌṭ:o	đ̣uḏh	ʌmbʌ	kelo
5.	ʌṭo	đ̣uḏh	ʌmbhʌ	kelo
6.	aṭo	đuḏh	ambo	kevṛo
7.	aṭo	đuḏh	ʌmbʌ	kevṛo
8.	aṭo	đ̣uḏh	ab̃o; ambo	kelo
9.	aṭo	ḏuḏh	ãmbo	keṛu
IO.	loṭ	đ̱uḏh	ãmbo	kevṛo
II.	aṭo	đ̣uḏh	ombṝi	kelo
I2.	aṭo	đ̣uḏh	õmbṛʌ^{i}/ -i	kevṛo/ and kelo
I3.	loṭ	ḏuḏh	ambṛi	kevṛo
I4.	aṭo	đ̣uḏh	ãbṛi	kevṛo
I5.	aṭe; tʃũn	đ̣uḏh	ʌmbʌ	kevṛa
I6.	aṭe	đ̣uḏh	ʌmbʌ	kevṛa
I7.	aṭe	đ̣uḏh	ambʌ	kevṛa
I8.	aṭo	ḏuḏh	ʌmbõ	kelõ
I9.	aṭo	đ̣uḏh	keri	tʃeḷiũ
20.	aṭa	ḏuḏh	ãmb	kela
2I.	ã:ṭh	ʃi:r	ambʌ	kela; mo:đ
22.	nu:ṭ	purvaȼ	ʌmbʌ	kevṛa

81. one	82. two	83. three	84. ten
1. ẹk	d̪o	t̪in	d̪ʌs
2. hιk°	ɓʌ	t̪e/ t̪ʳe	ɗ̣ʌhʌ
3. hιkʌ	ɗ̣ũ	t̪rʌⁱ	ɗ̣ʌhʌ
4. hek	ɓʌ	t̪rʌn	ɗ̪ʌs
5. hek	ɓe	t̪rʌn	ɗ̪ʌs
6. hek	ɓe	t̪in	ɗʌs
7. hek	ɓe	t̪in	ɗʌhʌ
8. hek	ɓe	t̪in	d̪ʌxʌ
9. ek	be	t̪raṇ	d̪ʌs
10. ek	ɓe	t̪rʌṇ/n	ɗ̪ʌh
11. hek	ɓe	t̪rʌn	ɗ̪ʌh
12. hek	ɓe	t̪rʌ̃ṇ/ t̪hrʌn	ɗ̣ɛ/eh
13. ek	ɓe	t̪rʌṇ	ɗah
14. ek	ɓe	t̪̣rʌṇ	ɗ̪oho
15. hek	ɗ̣on	t̪in	ɗ̣ʌs
16. hek	ɗ̣on	t̪in	d̪ʌs
17. hek	ɗ̪o	t̪in	ɗ̣ʌs
18. jek	ɓe	t̪rʌn	d̪ox
19. ek	ɓe	t̪̣reṇ	ɗ̪ohʌ
20. ek	d̪o	t̪in	d̪ʌs
21. jak	d̪o	s̪e	d̪ʌ
22. ʌsit	ιrʌt	musιt	d̪ʌ

	85. many	86. big	87. small	88. new
I.	bʌhoṭ	bʌṛa	tʃhoṭa	nʌja
2.	ghʌṇo	vʌð̣o	nʌṇḍho	nʌõ
3.	ghʌṇa	vʌḍa	nʌṇḍha	nʌvã
4.	ghʌṇa	vʌð̣o	nʌṇḍho	nʌvo
5.	ghʌṇo	vʌðo	nɩṇḍho	nʌbo
6.	kɩṭraj	moṭo	nɩnɩjo; neno	nʌvo
7.	ghʌṇã	moṭo	nenijo	nʌvo
8.	ghʌṇa	moṭo	nɩnijo;tʃhoṭo	nuvo
9.	ghʌṇa	moṭu	nanu	nʌvu
I0.	ghʌṇa	moṭo	nʌnko	nʌvõ
II.	ghʌṇa	moṭo	nõnko	nʌvo
I2.	ghʌ̃ṇõ	moṭo	nʌnko /nono	nʌvo
I3.	ghʌṇõ	moṭo	nano	nʌvo
I4.	ghʌṇõ	moṭo	nanõ	nʌvõ
I5.	ghʌṇe	moṭʌ^{i}	ḍhʌkeṛe	nʌvẽ
I6.	ghʌṇẽ	moṭa	ḍharṛe	nʌvã
I7.	ghʌṇe	moṭa	ḍhara	nʌvẽ
I8.	ghʌṇa	moṭo	nʌno	nʌvõ
I9.	ghʌnkʌro	moṭo	neno	nʌvũ
20.	ghʌṇa	bʌð̣a	lahuṛa	nʌva
2I.	ba:đ	mʌđʌn	kʌṣan	no:kh
22.	ba:z	bʌlun	tʃunʌk	puskun

	89. good	90. dry	91. wet	92. hot
1.	ʌtʃh:a	sukha; xuʃk	gila	gʌrʌm; gʌrm
2.	suṭho/ and tʃʌŋgo	sukʌl^/ sok:o	pusjʌlʌ; alo	gʌrʌm^
3.	suṭha; tʃʌŋã	suka	ala	kosa
4.	suṭho; ṭhahuko; puṭro	sukʌl	lilo	ũnho
5.	suṭho	suk:o	gɩl:o	onho
6.	suṭho	hukoṛo	bhinoṛo	ũŋ̣õ; ṭʌpʌṭʌ?
7.	ṭhauko	hukoṛo	lilo	ũnõ
8.	ṭhauko	huko	lilo	ũnhõ
9.	saru	suku	lilu	gʌrʌm
10.	hʌprõ	hukʌl	nilo	ũnõ
11.	ṭhauko	hukal	nilo	ũnõ
12.	ṭhauko	huko	nilo	ũnõ
13.	hʌkrõ	hũkõ	lilo	ũŋ̣õ
14.	hʌḡhrõ	hukõ	nilõ	ũnõ
15.	soṭhe	suke	gili	kose
16.	suṭha	suke	lile	kosa
17.	suṭhe	suke	lile	kose
18.	axʌli	huko	gɩlo	ṭaṭo
19.	hau	huko	lilo	hũnõ
20.	tʃʌŋga	suka	gila	ṭaṭa
21.	ʃʌr	hoʃk	ṭʌr	gʌrʌm
22.	dʒuva:n ?	ƀarun	pa:lun	ƀa:sun

	93. red	94. white	95. black
1.	lal	sʌfɛd	kala; sijah
2.	gaṛho/ gaṛo	ʌtʃho	karo
3.	gaṛha	ʌtʃha	kala
4.	raṭo	ʌtʃho	kaḷo
5.	rʌṭo	ʌtʃho	kaḷo
6.	raṭo	atʃho	kaḷo
7.	raṭo	aso	kaḷo
8.	raṭo	atʃho	kaḷo
9.	lal	sʌpheḍ	kaṛo
10.	raṭŏ	ḍhorŏ	karŏ
11.	raṭo	ḍhoḷo	kaḷo
12.	raṭo	ḍhoṛo/ ḍhoḷo	kaṛo/ kaḷo
13.	raṭŏ	ḍholŏ	kalŏ
14.	raṭo	ḍhoḷŏ	kaḷŏ
15.	raṭa	atʃha	kaṛa
16.	raṭe	atʃhe	kaṛe
17.	raṭa	ḍhaũṛa	kaṛa
18.	raṭo	ḍhaũlo	kalŏ
19.	raṭo	ḍhoḷo	kaḷo
20.	lal	ḍhauḷa	kala
21.	ṣohor	ṣofeḍ/ ɩṣped	sja
22.	xi:sun	pi:vʌn	ma:o[ʌ]n

	96. he drinks	97. he eats
I.	vo piṭa hɛ	vo khaṭa hɛ
2.	hu pieṭho	hu khaeṭho
3.	o pinḍa pijae	o khanḍa pijae
4.	o pijeṭo	o khaeṭo
5.	o pieṭo	o khaeṭo
6.	o pije	o khave
7.	o pije he	o khaje he
8.	o pijevo	o khavivo
9.	ṭe pive tʃhe	ṭe khae tʃhe
IO.	u pije se	u khaje se
II.	ŏ pije rijo	ŏ khah rijo
I2.	ŏ pije rijo/ ... se [etc]	ŏ khaje rijo
I3.	i pije se	i khae se
I4.	i pijehero	i khahero
I5.	o pije tʃhɛ	o kha tʃhɛ
I6.	o pije pɩla	o kha pɩla
I7.	o pije pʌḷa	o kha pʌḷa
I8.	o pirijo	o khairijo
I9.	pelo pije vo	pelo khae vo
20.	jo piṭa hɛ	jo khaṭa hɛ
2I.	ai var ṭe	ai var ṭe
22.	e kunɩŋṭini/e? etc.	e kunɩŋṭini

	98. he sees	99. he hears
I.	vo ḍekhṭa hɛ	vo sunṭa hɛ
2.	hu ḍɩseṭho	hu Ƀuḍheṭho
3.	o ḍekhḍa pijae	o suṇ̂ḍa pijae
4.	o ḍekheṭo	o sʌmbṛeṭo
5.	o dʒueṭo	o suneṭo
6.	o ḍekhe	o hũnẽ
7.	o zoe he	o hombḷe he
8.	o dʒovivo	o xunejvo
9.	ṭe dʒoe tʃhe	ṭe sambhʌṛe tʃhe
IO.	u ḍekhe se	u hambre se
II.	ŏ zohe rijo	ŏ hŏmbḷe rijo
I2.	ŏ zoe rijo	ŏ hombḷe rijo/ ..hombṛe...
I3.	i zoe se	i hambḷe se
I4.	i zoe hero	i hombḷe hero
I5.	o ḍekhe tʃhɛ	o suṇẽ tʃhɛ
I6.	o ḍekhe pɩla	o suṇẽ pɩla
I7.	o ḍekhe pʌḷa	o sune pʌḷa
I8.	o dekhirijo	o hʌmdʒirijo
I9.	pelo zoe vo	pelo hombḷe vo
20.	jo ḍekhṭa hɛ	jo sunṭa hɛ
2I.	ai tʃarge	ai bokʌnʌge
22.	e unɩŋṭini	e bɩnɩŋṭini

	IOO. he sleeps	IOI. he goes
I.	vo soṭa hɛ	vo dʒaṭa hɛ
2.	hu sumheṭho	hu vʌɲeṭho
3.	o sumḍa pijae	o venḍa pijae
4.	o suṭoṭo	o dʒaeṭo
5.	o sueṭo	o dʒaeṭo
6.	o huve	o dʒave
7.	o huvere he	o dʒae he
8.	o xuvevo	o dʒavivo
9.	ṭe suve tʃhe	ṭe dʒae tʃhe
IO.	u hue se	u dzae se
II.	ʊ huveh rijo	ʊ zahe rijo
I2.	ʊ ghae rijo/ ..huṭo..	ʊ zae rijo
I3.	i ʊghẽ se	i zae se
I4.	i ŭghae dʒo	i ẓa hero
I5.	o nŭdʒhe tʃhɛ	o dʒa tʃhɛ
I6.	o nudʒhẽ pɩla	o dʒae tʃɩla
I7.	o nŭḷa pʌḷa	o dʒa pʌḷa
I8.	o huigijo	o dʒairijo
I9.	pelo hue vo	pelo zae vo
20.	jo soṭa hɛ	jo dʒaṭa hɛ
2I.	ai vapsi	ai ravʌgae
22.	e xatʃɩŋṭini	e iɲɩŋṭini

	IO2. he [it] flies	IO3. he comes ....
I.	jɩ urṭa hɛ	vo aṭa hɛ
2.	hu uḍ̂ameṭho	hu ʌtʃeṭho
3.	o uḍ̂ʌrḍa pijae	o anḍa pijae
4.	o uḍ̂eṭo	o aeṭo
5.	o uḍ̂eṭo	o aeṭo
6.	o ud̂e	o ave
7.	o ud̂e he	o ave he
8.	o uḍ̂ejivo	o avivo
9.	ṭe uḍe tʃhe	ṭe ave tʃhe
IO.	u uḍe se	u ave se
II.	ɞ ũḍ̂ʌhe rijo	ɞ aveh rijo
I2.	ɞ uḍe rijo	ɞ ave rijo
I3.	i ud̂e se	i ave se
I4.	i uḍe herɞ	i ave hero
I5.	o uḍere tʃhɛ	o ave tʃhɛ
I6.	o uḍ̂ʌrṭi gɩla	o ave tʃʌla
I7.	o uḍ̂ti gile	o ave pʌḷa
I8.	o uḍ̂irijo	o avirijo
I9.	pelo uḍe vo	pelo ave vo
20.	jo uḍ̂ʌṭa hɛ	jo avṭa hɛ
2I.	ai bal[ʌ]kʌnṭ	ai peḍake; ai vaḍɩje
22.	e Balkʌŋɩŋṭini	e bʌŋɩŋṭini

	104. he sits	105. he stands
1.	vo beṭht̪a hɛ.	vo khʌṛa hot̪a hɛ
2.	hu vehet̪ho	hu bihet̪ho
3.	o ɓʌhʌnd̪a pijae	o uṭhʌd̪a pijae ?
4.	o ɓeset̪o	o ubhit̪o
5.	o beset̪o	o bhitʃet̪o
6.	o bexe	o obhi
7.	o behe he	o ubhe he
8.	o bexejivo	o ubidʒejivo
9.	t̪e ɓese tʃhe	t̪e ubho tʃhe
10.	u ɓehe se	u ubhõ se
11.	õ ɓehe rijo	õ ubheh rijo
12.	õ ɓeṭho rijo/...bijat̪ho...	õ ubhe rijo
13.	i ɓeṭha se	i ubat̪hja se
14.	i beṭho	i ubhose
15.	o ɓese tʃhɛ	o ubhɛ tʃhɛ
16.	o bese pɩla	o uṭht̪i ubɩla ?
17.	o ɓela he	o ubhla he
18.	o besirijo	o ubot̪haigijo
19.	pelo ɓehe vo	pelo ubho
20.	jo ɓ/b est̪a hɛ	jo ubha[reht̪a]hɛ
21.	ai nɩʃt̪a	ai padʌt̪
22.	e zuŋdɩŋt̪ini	e bʌʃmʌnɩŋt̪ini

	I06. he gives	I07. he takes	I08. he speaks
I.	vo d̪et̪a hɛ	vo let̪a hɛ	vo bolt̪a hɛ
2.	hu ɗ̣eet̪ho	hu vʌṭhet̪ho	hu ɗ̣a̪lhaet̪ho /ʌ
3.	o ɗ̣end̪a pijae	o ghɩnd̪a pijae	o alaind̪a pijae
4.	o ɗ̣eet̪o	o leet̪o	o ɓolet̪o
5.	o ɗeet̪o	o leet̪o	o ɓolet̪o
6.	o d̪ee	o lee	o ɓole
7.	o ɗ̣ee he	o lee he	o bole he
8.	o ɗ̣ejivo	o lejivo	o ɓolejivo
9.	t̪e ape tʃhe	t̪e lee tʃhe	t̪e bole tʃhe
I0.	u dʒee se	u lee se	u bole se
II.	ŏ d̪ehe rijo	ŏ lehe rijo	ŏ ɓoleh rijo
I2.	ŏ d̪ee rijo/ ŏ dehe se	ŏ lee rijo/ ŏ lee se	ŏ ɓole rijo/ ŏ bole se
I3.	i ale se	i lee se	i ɓole se
I4.	i ale hero	i le hero	i ɓole hero
I5.	o ɗ̣iɛ tʃhɛ	o gɛhɛ tʃhɛ	o ɓole tʃhɛ
I6.	o ɗ̣ije pɩla	o gehe pɩla	o ɓole pɩla
I7.	o ɗ̣e pʌḷa	o gee pʌḷa	o ɓole pʌḷa
I8.	o d̪ejirijo	o lejirijo	o bolirijo
I9.	pelo ɗ̣ee vo	pelo lee vo	pelo ɓole vo
20.	jo d̪et̪a hɛ	jo let̪a hɛ	jo bolt̪a hɛ
2I.	ai d̪ʌnt̪e/ʌ	ai z̪uri	ai guʃi
22.	e et̪ɩŋt̪ini	e alɩŋt̪ini	e itkʌŋiŋt̪ini

	109. what?	110. when?
1.	kja	kʌb
2.	tʃha	kʌḍʌhẽ
3.	kja	kʌḍa
4.	ki	kʌḍʌha
5.	ki	kʌḍʌhe
6.	ki	kiḍe
7.	ki	kʌḍʌhe
8.	ki	kɩḍe
9.	ʃũ	kjare
10.	ʃõ	tʃerẽ
11.	ki	kʌ̃jõ
12.	ki	kʌjõ / keḍi
13.	ʃõ	tʃãre
14.	ʃũ	kʌḍi
15.	ka	kɩḍ [ʌ]
16.	ka	kaṛhũ
17.	ka	kɩḍʌ
18.	xũ	kʌḍʌ
19.	hũ	tʃarẽ; tʃĩjẽ
20.	kja	keḍh
21.	tʃhi	kʌdi
22.	ʌntʌse	tʃɩvʌr

	III. who?	II2. where?	II3. why?
I.	kɔn	kʌhã	kjũ; kjõ
2.	kjer^ʌ	kɪt̪he	tʃho
3.	ker	kɪt̪hãj	kjõ
4.	koŋ̣	kɪt̪h	ki
5.	kũn	kɪt̪h	ki
6.	kõŋ̣	kɪt̪hje	kjã
7.	kũŋ̣	ket̪h	ki
8.	koŋ̣ʌ	ket̪h; kiha; kĩko	kjã
9.	kɔ̃ŋ̣	kjã	kẽm
I0.	koŋ̣^ʌ	tʃã	tʃem
II.	kũn	ket̪h	kʌm
I2.	kũŋ̣	ket̪he	kʌm
I3.	koŋ̣	tʃa	tʃʌm
I4.	kũn	tʃã	tʃʌm
I5.	kũŋ̣	kɪt̪he	kã
I6.	kuŋ̣	kɪt̪he	ka
I7.	kũŋ̣	kʌt̪he	ka
I8.	kõn	kjehã	seko ?
I9.	kũŋ̣	tʃõhõ	hũ
20.	kõŋ̣	kʌṛe	kjõ
2I.	kae	godʒa	tʃhija
22.	ḍerɪ	ʌraŋ	ʌntʌɪ

	II4. I	II5. thou	II6. he/she/it : near	– far
I.	mɛ̃	t̪om; tũ	jɵ	vo
2.	aũ; mã	t̪ũ	hi	hu
3.	mʌ̃[1]	t̪ũ	e	o
4.	hũ	t̪ũ	e	o
5.	hũ	t̪ũ	e	o
6.	hũ	t̪ũ	e	o
7.	hũ	tũ	e	o
8.	hũ	t̪ũ	e	o
9.	hũ	t̪ũ	t̪e	
IO.	hũ	t̪õ	a	u
II.	hũ	t̪ũ	e	õ
I2.	hũ	tũ	e	õ
I3.	mũ	t̪ũ	i	a
I4.	mũ	t̪õ	i	u
I5.	mẽ	t̪ũ	ha	va
I6.	mẽ	t̪ũ	e	o
I7.	mẽ	t̪ũ	a	o
I8.	mɛ	t̪õ	e	o
I9.	mũ	t̪ũ	a	ijo; pelo
20.	hũ	t̪ãũ	jo	vo
2I.	mã	t̪o:	ɩʃi	ai
22.	i	ni	o	e

	II7. we : incl. – excl.	II8. you [plural]
I.	hʌm	ap; tom
2.	ʌsĩ; ʌsã	ṭʌvhĩ; ṭʌvhã
3.	ʌsã	ṭũsã
4.	ʌsĩ	ʌbhẽ
5.	ʌsĩ	ʌ̃vẽ
6.	mẽhẽ	ṭhe
7.	mẽ	ṭhe
8.	mẽhe	ṭhẽ
9.	ʌme ⟷ (?) apṛe	ṭʌme
IO.	ʌme ⟷ (?) apṛe	ṭʌme
II.	ʌmẽ	ṭʌme
I2.	ʌme , ape? apṇã ? (⟷)	ṭʌme
I3.	ʌm:e ⟷ (?) apṛe	ṭʌme
I4.	ʌme	ṭʌme
I5.	ʌmhĩ	ṭʌmhĩ
I6.	ʌmi	ṭʌmi
I7.	ʌmi	ṭʌmi
I8.	hʌme	ṭʌme
I9.	ʌme	ṭʌme
20.	hʌm	ṭãũ
2I.	mã	ṭo
22.	nʌn	num

	II9. they : near	— far	I20. and
I.	jɩ	vo	ɔr
2.	ihe	uhe	ʌ̃ĩ
3.	ihe	uhe	ʌ̃ũ
4.	e	o	[a]nʌ
5.	e	o	eh ?
6.	ei	oi	en; ʌ̃ĩ
7.	e	o	ʌ^{u}ra
8.	e	o	an
9.	t̬eo		ʌne
IO.	a	u	ʌne
II.	e	õ	ʌn
I2.	e	õ	ʌne
I3.	ãĩ	õĩ	ʌzi
I4.	a	u	nʌ
I5.	ja	va	ʌ̃ĩ
I6.	e	o	ʌ̃ũ
I7.	a	o	ʌne
I8.	hije		hɩni
I9.	ai	ije; pele	ene
20.	je	ve	ʌr
2I.	ɩʃi	ai	ja
22.	o	e	ʌ̃ĩ

SECTION B : NOUNS AND MODIFIERS

I. [a] One big boy

I. [b] Two big boys

2. [a] One big girl

2. [b] Two big girls

3. [a] One big baby

3. [b] Two big babies

4. [a] This house

4. [b] That house

5. [a] My house

5. [b] His house

5. [c] Two new houses

	I.[a] one big boy	I.[a] two big boys
I.	ek bʌɽa lʌɽka	ɖo bʌɽe lʌɽke
2.	hɩk° vʌɖo tʃhokɩro	Bʌ vʌɖa tʃhokɩra
3.	hɩk vʌɖa tʃhokra	ɖu vʌɖe tʃhokre
4.	hek vʌɖo tʃhokro	Bʌ vʌɖa tʃhokra
5.	hek tʃhokro vʌɖo	Be tʃhokra vʌɖa
6.	hek moʈo tʃhokro	Be moʈa tʃhokra
7.	hek moʈo tʃokro	Be moʈa tʃokra
8.	hek moʈo tʃhokro	Be moʈa tʃhokra
9.		
IO.	ek moʈo sokro	Be moʈa sokra
II.	hek moʈo sokro	Be moʈa sokra
I2.	hek moʈo sokro	Be moʈa sokra
I3.	ek moʈo sokro	Be moʈa sokra
I4.	ek moʈo sokro	Be moʈa sokra
I5.	hek moʈe tʃhohʌr	ɖon moʈi tʃhohɩrẽ
I6.		
I7.		
I8.	ek moʈo tʃhoro	Be moʈa tʃhora
I9.	ek moʈo sijo	Be moʈa sija
20.	ek bʌɖa tʃhora	ɖo bʌɖe tʃhore
2I.	jak mʌʐʌn bʌtʃʌk	ɖo mʌʐʌn bʌtʃʌk
22.	ʌsɩt bʌl:o marko	ɩrʌt bʌl:o marko

	6.[a] he saw the boy	6.[b] he saw the boys
I.	usne lʌṛke ko ḍekha	usne lʌṛkõ ko ḍekha
2.	hunʌ tʃhokɩro ḍɩṯho	hunʌ tʃhokɩra ḍɩṯha
3.	ũhũ tʃhokra ḍɩṯha ha	ũhũ tʃhokre ḍɩṯhe hɩn
4.	uve tʃhokro ḍɩṯho	uve tʃhokra ḍɩṯha
5.	ue tʃhokro ḍʌṯhoṯo	ue tʃhokra ḍʌṯhaṯa
6.	oe tʃhokro ḍiṯho	oe tʃhokra ḍiṯha
7.	uve tʃokro ḍiṯhoṯho	ue tʃhokra ḍiṯhaṯha
8.	ue tʃhokro dʒojo	ue tʃhokra dʒoja
9.		
IO.	ũṇe sokro ḍetʃho	ũṇe sokra ḍetʃha
II.	uve sokro ḍekhjo	uve sokra ḍekhja
I2.	uve sokro bhaḷjo/ ue sokro ḍekhjo	uve sokra bhaḷja, ue sokra ḍekhja
I3.	mẽ sokro bhaḷjoṯo	mẽ sokra bhaḷjaṯa
I4.	ẽṇẽ sokrane bhaḷjoṯo	ẽṇẽ sokrane bhaḷjaṯa
I5.	oṇe tʃhohranũ ḍekhlɛ	oṇe tʃhohrãnũ ḍekhlɛ
I6.		
I7.		
I8.	hɩnʌ tʃhoro ḍekhijo	hɩnʌ tʃhora ḍekhija
I9.	eṇe soran laḏhu	eṇe sorõ laḏhõ
20.	un tʃhora ḍekha	un tʃhore ḍekhe
2I.		
22.	e markos xʌna	e marko xʌna

	5. [a] come here!	5. [b] don't come here!
I.	jʌhã ao; aije; a	jʌhã mʌṯ ao; aije; a
2.	hɩṯe ʌtʃ°; ʌtʃo	hɩṯe nʌ ʌtʃ°; ʌtʃo
3.	eḏe a	eḏe na a
4.	ɩrʌhu a	ɩrʌhu mʌṯe ae
5.	oro a	oro ɩṯnʌ̃ a
6.	ija aro	ija ni a
7.	are ko av	are ko mʌṯe av
8.	ʌrho a; iha a; ĩko a	ʌrho ni a; iha ni a; ĩko ni a
9.		
IO.	ʌɲa haljo	ʌɲa na aje
II.	oro av	oro mʌṯ av
I2.	il av/ ijel av	ethɛ mʌṯ av/ ijel mʌṯ ave
I3.	ãĩ ae	ãĩ na ae
I4.	õĩ aj	mʌṯ avo
I5.	iṇʌge a	iṇʌge nʌ ava
I6.		
I7.		
I8.	aro ave	hako avije ma
I9.	hõ av	hõ ʃa nʌ ave
20.	urhã av	urhã na av
2I.		
22.	ʌŋʌŋgbʌr[sg.] ʌŋʌŋbʌbu	daŋ bʌfere

	4.[a] he does not come	4.[b] he did not come	4.[c] he will not come
I.	vo nʌhī aṭa	vo nʌhī aja	vo nʌhī aega
2.	hu nʌṭho ʌtʃe	hu nʌ ajo/..ajoho	hu nʌ inḍo
3.	o nʌhī anḍa pijae	o nʌhī aja ha	o nʌhī asi
4.	o nʌṭho ave	o ko ajo	o konʌhī ae
5.	o koni aeṭo	o koni ajoṭo	o koni ae
6.	o kon ave	o kon ajo	
7.	o ni ave	o ni ajoṭo	o ni avhe
8.	o koni ave	o koni ajoṭo	o koni ave
9.			
I0.	u nʌṭhi avṭŏ	u nʌṭhi ajo	u nʌi ave
II.	ŏ nʌ̃ī ave	ŏ nʌ ajo	ŏ nʌ̃ī ave
I2.	ŏ nʌṭhi avṭo	ŏ nʌṭhi aja/ ŏ nʌṭo ajo	ŏ nʌ̃ī ave/..ni..
I3.	i ne ave	i nʌṭo ajo	i ne ave
I4.	i ne ave	i na ajo	i ne ave
I5.	o nʌhī avẽ tʃhɛ	o konʌhī ala	o konʌhī avhi
I6.			
I7.			
I8.		jo ko avijone?	
I9.	ijo ṭhi avṭo	ijo ṭhi ajoṭ	ijo ne ave
20.	jo nahi avṭa	jo nahi ajaṭhija	jo nahi avgṛa
2I.			
22.	e bʌfʌk	e bʌtausus	e bʌfʌk

	3.[e] we will come	3.[f] you [pl.] will come	3.[g],[h] they m.,f. will come
I.	hʌm aẽŋge .	ṭom aoge; ap aẽŋge	vo aẽŋge, vo aẽŋgi
2.	ʌsã inḍasĩ/ ʌsã inḍase	tʌvhã inḍʌo/ avhã ĩnḍa	uge inḍa, uhe inḍiũ
3.	ĩsã asũ	ṭũsã avso	uhe avsʌn, uhe asʌn
4.	ʌsĩ asã	ʌbhẽ ʌso; ..aso?	o ase
5.	asĩ asã	avĩ aso	o ase
6.	me aiçã	ṭhe aiço	oi aiçe
7.	mẽ ãhõ	ṭhe aja	o avhe ?
8.	mẽ aʃã	ṭhe aʃo	e,o aʃe
9.			
IO.	ʌme, apṛe avʃõ	ṭʌme avʃo	u avʃe
II.	ʌmẽ avʃõ	ṭʌme avʃo	õ avʃe
I2.	ʌme, ape avʃõ	ṭʌme avʃõ/..avʃo	õ avʃe
I3.	ʌme,apṛe avʃã	ṭʌme avʃo	ãĩ avʃe
I4.	ʌme avʃã	ṭʌme avẓo	a avʃe
I5.	ʌmhi avhũ	ṭʌmhi avha	ja[?] avhe
I6.			
I7.			
I8.	hʌme avxũ	ṭʌme avxo	o avxẽ
I9.	ʌme avʃũ	ṭʌme avzo	ai avʃẽ
20.	hʌm avĩŋgṛe	ṭãũ avĩŋgṛe	je avĩŋṛe, je avĩŋgṛĩ jã
2I.			
22.	nʌn bʌrena	num bʌrere	num bʌrera

	3.[a]I will come	3[b]you[sg.] will come	3.[c]he,[d]she will come
I.	mẽ aũŋga	ṭu aega	vo aega, vo aegi
2.	mã iŋḍos/ mã iŋḍuse	ṭu iŋḍẽ	hu iŋḍo, hu iŋḍi
3.	mʌ̃ī asa	ṭũ asī	o asi
4.	hũ ais	ṭũ ais	o ase
5.	hũ ais	ṭũ ais	o ase
6.	hũ aiçʌ	ṭũ aiçʌ	o aiçe
7.	hũ avihi	ṭũ avihi	o avhe
8.	hũ aix	ṭũ aix	o aʃe
9.			
I0.	hũ aviʃ	ṭõ aviʃ	u avʃe
II.	hũ avi	ṭũ avi	õ avʃe, õavʃi
I2.	hũ avi	ṭũ avi	õ avʃe
I3.	mũ aviʃ	ṭũ aviʃ	i avʃe
I4.	mũ ajuʃ; ..aviʃ	ṭũ aviʃ	i avʃe
I5.	mẽ avhī	ṭũ avhe	o avhi
I6.			
I7.			
I8.	mɛ aviʃi	ṭo aviʃi	o avxẽ
I9.	mũ aviʃ	ṭũ aviʃ	ijo avʃe
20.	hũ avʌ̃ŋgṛa	ṭãũ avʌ̃ŋgṛa	jo avgṛa, jo avgṛi
2I.			
22.	i bʌreva	ni bʌresa	e bʌrek

	2.[e] we came	2.[f] you[pl.] came	2.[g],[h] they m.,f. came
I.	hʌm aje	tom aje, ap aje	vo aje, vo ajī
2.	ʌsã ajasī	tʌvhã ajʌo	uhe aja, uhe ajũ
3.	ĩsã aje hʌse	ṭũsã aje hʌve	uhe aje hʌn, uhe ajã hʌn
4.	ʌsī aja ʌha	ʌbhẽ aja oho	o aja ɛhɛ, o aje ɛhɛ
5.	ʌsī ajaṭa	avī ajaṭa	o ajaṭa, o ajẽṭẽ
6.	me ava	ṭhe au	oi ave
7.	mẽ ajaṭa	ṭhe ajaṭa	o ajaṭa, o ajeṭe
8.	mẽ ajaṭa	ṭhe ajaṭa	elo ajaṭa, elo ajeṭe
9.			
IO.	ʌme aja; apṛe aja	ṭʌme aja	u aja, u avijõ
II.	ʌmẽ aja	ṭʌme aja	õ aja, õ ave
I2.	ʌme aja/..ajaṭa	ṭʌme aja/..ajaṭa	õ aja, õ ave/ ..ajaṭa, aveṭe
I3.	ʌme ajaṭa; apṛe ajaṭa	ṭʌme ajaṭa	ãī ajaṭa, ãī avjũṭi
I4.	ʌme aja	ṭʌme aja	i/a aja i/a aviũ
I5.	ʌmhī ali	ṭʌmhi ali	ja[?] ali, ja[?] alia
I6.			
I7.			
I8.	hʌme avijaṭha	ṭʌme avijaṭha	o avijoṭho, o avijiṭhi
I9.	ʌme ajaṭ	ṭʌme ajaṭ	ai ajaṭ
20.	hʌm aje ṭhije	ṭãũ aje ṭhije	je aje ṭhije je ajã ṭhījã
2I.			
22.	nʌn bʌsusun	num bʌsusure	o[?] bʌsusun, o[?] bʌsusur

	2.[a] I came	2.[b] you[sg.] came	2.[c] he, [d] she came
I.	mɛ̃ aja	ṯu aja	vo aja, vo aji
2.	mã ajos	ṯũ ajẽ	hu ajo, hu aji
3.	mʌ̃^{i} aja hʌm	ṯũ aja hʌ̃vī	o aja ha,o aji hʌ^{i}
4.	hũ ajo ʌha	ṯũ ajo ɛhɛ	o ajo ɛhɛ, ..aji..
5.	hũ ajoṯo	ṯu ajoṯo	o ajoṯo, o ajiṯi
6.	hũ ãvã	ṯũ ãvẽ	o ave
7.	hũ ajoṯo	ṯũ ajoṯo	o ajoṯo, o ajiṯi
8.	hũ ajoṯo	ṯũ ajoṯo	o ajoṯo, o ajiṯi
9.			
I0.	hũ ajo	ṯõ ajo	u ajo, u avi
II.	hũ ajo	ṯũ ajo	õ ajo, õ aji
I2.	hũ ajo/..ajoṯo	ṯũ ajo/..ajoṯo	õ aja, õ avʌ^{i}/. avʌ^{i}tʌ^{i}
I3.	mũ ajoṯo	ṯũ ajoṯo	i ajoṯo, i aviṯi
I4.	mũ ajo; mũ avi[f.]	ṯũ ajo	i ajo, i avi
I5.	mẽ ala	ṯũ ala	o ale, o ali
I6.			
I7.			
I8.	mɛ avijoṯho	ṯõ avijoṯho	o avijoṯho, o avijiṯhi
I9.	mũ ajoṯ	ṯũ ajoṯ	pelo ajoṯ
20.	hũ aja ṯhija	ṯãũ aja ṯhija	jo aja ṯhija, jo aji ṯhiji
2I.			
22.	i bʌsusut	ni bʌsusut	e bʌsusus

	I.[e] we come	I.[f] you[pl.] come	I.[g] they m.,[h] they f. come
I.	hʌm at̪e hẽ	ap ate hẽ	vo ate, ati hẽ
2.	ʌsã ʌtʃũt̪ha	tʌvhã ʌtʃot̪ha	uhe ʌtʃʌnt̪ha,-thiũ
3.	ʌ̃sã and̪e pijũ	t̪usã and̪e pijũ	uhe and̪e pʌjɩn, uhe and̪iã pɪjaẽn
4.	ʌsĩ aũt̪a	ʌbhe aut̪a	o aet̪a, o aet̪ẽ
5.	ʌsĩ aũt̪a	ʌvĩ aũt̪a	o aet̪a, o aet̪e
6.	me aja	t̪he aja	oi aja; ei aja [far; near]
7.	mẽ avõ hõ	t̪he avo ho	o ave he
8.	mẽ aviva	t̪hẽ aviva	o aviva, o avive
9.			
I0.	ʌme/apr̥e avĩje sʌ̃jẽ	t̪ʌme avo so	u ave se
II.	ʌmẽ avõh rija	t̪ʌme avõh rija	õ aveh rija, riji
I2.	ʌme avõ rija/sõ	t̪ʌme avo rija/so	õ ave rija, rije/se
I3.	ʌme ʌpr̥e avã sã	t̪ʌme avo so	ãĩ ave se
I4.	ʌme ava hʌrã	t̪ʌme avo ra	a avo ra, ri, rã [mixed
I5.	ʌmhĩ aũ tʃhʌũ	t̪ʌmhĩ ava tʃhava	ve ave tʃhɩt̪ĩ
I6.			
I7.			
I8.	hʌme avirija	t̪ʌme avirija	o avirijo, o aviriji
I9.	ʌme avija va	t̪ʌme avo va	ije ave va
20.	hʌm avt̪a hʌ^i	t̪ãũ avt̪a hʌ̃^ĩ	je avt̪e hʌ̃^ĩ, je avt̪ĩjã hʌ̃^ĩ
2I.	mã ped̪ake	INCOMPLETE	
22.	nʌn bʌŋɩŋt̪unu	num bʌŋɩŋt̪unu	e bʌŋɩŋt̪unu

	I.[a] I come	I.[b] you[sg.] come	I.[c],[d] he, she comes
I.	mɛ̃ aṭa hɛ	ṭu aṭa hɛ; ṭom aṭe ho	vo aṭa, ati hɛ
2.	mã ʌtʃãnṭho	tũ ʌtʃẽ/i ṭho	hu ʌtʃeṭho, -thi
3.	mʌ^{i} anḍa pija	tũ anḍa pijãẽ	o anḍa pijae, o anḍi pʌje
4.	hũ aũṭo	ṭu aẽṭo	o aeṭo, aeṭi
5.	hũ aũṭo	ṭũ aẽṭo	o aeṭo, aeṭi
6.	hũ ajo	ṭu ajo	o ajo, aji
7.	hũ avõ hõ	ṭũ ave he	o ave he
8.	hũ avivo	ṭũ avivo	o avivo, avivi
9.			
I0.	hũ ãvõ sõ	ṭõ av so	u ave se
II.	hũ avoh rijo	ṭũ aveh rijo	o aveh rijo, riji
I2.	hũ ãvõ rijo/sõ	ṭũ ave rijo/ se	o ave rijo, rʌ^{i}/se
I3.	mũ avũ sõ	ṭũ ave se	i ave se
I4.	mũ avũ hʌro	ṭũ ave hero	i ave hero, hiri
I5.	mẽ avẽ tʃhɛ̃	ṭũ avɛ tʃhɛ ?	o ave tʃhɛ
I6.			
I7.			
I8.	mɛ avirijo	ṭõ avirijo	o avirija, aviriji
I9.	mũ avũ vo	ṭũ ave vo	pelo ave vo
20.	hũ avṭa hʌ^{i}	ṭãũ avṭa hʌ^{i}	jo avṭa hʌ^{i}, avṭi..
2I.	mã peḍakã	ṭo peḍake	ai peḍake
22.	i bʌŋɩŋṭini -ṭene?etc	ni bʌŋɩŋṭini	e bʌŋɩŋṭini

SECTION D : THE VERBAL SYSTEM

I. Simple present of the verb 'to come'

2. Simple past of the verb 'to come'

3. Simple future of the verb 'to come'

4.[a] he does not come

4.[b] he did not come

4.[c] he will not come

5.[a] come here!

5 [b] don't come here!

Note : for some of the lists, the tenses do not correspond to what is stated, especially in the simple present where the auxiliary [rijo] and cognates probably refers to a present continuous tense.

Unless otherwise indicated, masculine forms are given.

3. [b] these are the man's goats

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1. jɩ ɩs ad̪mi ki bʌkriã hɛ

2. ɩhe maṇhu dʒũ Ƀʌkriũ ahɩnɩ

3. e maṇhu d̪ja Ƀʌkria hɩn

4. e ad̪mi re tʃhaḷẽ ɛhɛ

5. ue maṛu re tʃãḷẽ ehe

6. e ad̪mi re bʌkre he

7. e mʌnkre Ƀʌkre he

8. e mɩnʌkh re Ƀʌkre hɛ

9.

10. a ad̪mi nã bʌkrã se

11. e ad̪mi re Ƀakre se

12. e moṇhe ra Ƀakre se/ ..mõṇhõ re...

13. a ad̪mini Ƀʌkriũ se

14. a ad̪mi nīũ Ƀʌkriũ se

15. jʌha tʃhʌ maṇʌsa tʃiʌ Ƀakɩrija hɩt̪ɩja

16.

17.

18. e ad̪mi ni bakri xɛ

19. pela vɩrt̪ani Ƀakrijẽ se

20. je ad̪mijẽ ki tʃhʌḷjã hʌ[i]

21. e mʌrd̪ome boda

22. d̪a bʌndʌɣ[ʌ] se na et̪ko

3 . [a] this is the man's house

I. jɩ ɩs adṃi ka mʌkan hɛ

2. hi maṇhu dʒo ghʌr° ahe

3. e maṇhu ḍa ghʌr he

4. e maṛhu ro ghʌr ɛhɛ

5. ue maṛu ro ghʌr ehe

6. e aḍmi ro ghʌr he

7. e mʌnkro ghʌr he

8. e mɩnʌkh ro ghʌr hɛ

9.

IO. a maṇa nŏ ghʌr se

II. e aḍmi ro ghʌr se

I2. e moṇhe ro ghʌr se

I3. a aḍmi nũ ghʌr se

I4. i aḍmi nũ ghʌr se

I5. ī manʌsa tʃɛ ghʌr tʃhɛ

I6.

I7.

I8. e aḍmi no ghʌr xɛ

I9. a vɩrṭanũ ghʌr se

20. jo aḍmī jẽ ka ghʌr hʌ^{i}

2I. ɩʃi a mʌrḍome log e

22. ḍa bʌndʌɣ[ʌ] se nʌ ura ari/e

2. [a] he is a teacher   2. [b] he is a good man

I.	vo usṭaḍ hɛ	vo [ek] ʌtʃh:a aḍmi hɛ
2.	hu [hɩk] masṭʌr ahe	hu [hɩk] suṭho maṇhu ahe
3.	o masṭar he	o suṭha maṇhu he
4.	o masṭʌr ɛhɛ	o suṭho maṛhu ɛhɛ
5.	o [hek] masṭʌr ehe	o [hek] soṭh:o maṛu ehe
6.	e usṭad he	e [hek] suṭho maṇʌs he; ..maṇʌxʌ.
7.	o masṭʌr he	o ṭhauko mʌnka hɛ; ..maṇa ..
8.	o maxṭʌr hɛ	o ṭhauko mɩnʌkh hɛ
9.		
IO.	u masṭʌr se	u hʌprõ maṇa se
II.	õ masṭʌr se	õ ṭhauko aḍmi se
I2.	õ masṭʌr sɛ/e etc.	õ [hek] ṭhauko mõṇe se
I3.	a masṭʌr se	a hʌkro aḍmi se
I4.	u masṭʌr s̤e	u [ek] hʌḍhro aḍmi s̤e
I5.	o masṭʌr tʃhɛ	o [hek] soṭhe maṇʌs tʃhɛ
I6.		
I7.		
I8.	hijo maxṭʌr hɛ	jo axʌli aḍmi hɛ
I9.	ijo usṭaḍ se	ijo hau vɩrṭo se
20.	jo masṭʌr hʌ^{i}	jo tʃʌŋga aḍmi hʌ^{i}
2I.	ai masṭʌr e	ai ʃʌre/ʌ mʌrḍom e
22.	e ma:sṭʌr se	e dʒuv/wano bʌndʌɣʌ se

	I. [a] this is my house	I. [b] that is his house
I.	jɩ mera mʌkan hɛ	vo uska mʌkan hɛ
2.	hi moh̃ɩdʒo ghʌr ahe	hu hunʌdʒo ghʌr ahe
3.	e ṃeḓa ghʌr he	o ũhũnḏa ghʌr he
4.	ẽ mãdʒo ghʌr ɛhɛ	o uvero ghʌr ɛhɛ
5.	e mãdʒo ghʌr ehe	o uvero ghʌr ehe
6.	e mãdʒo ghʌr	o ijero ghʌr
7.	e maro ghʌr he	o uvero ghʌr he
8.	e maro ghʌr hɛ	o uvero ghʌr hɛ
9.		
IO.	a marõ ghʌr se	u ũnõ ghʌr se
II.	e maro ghʌr se	õ uvaro ghʌr se
I2.	e maro ghʌr se	õ uvaro ghʌr se/..ũvõro..
I3.	a maro ghʌr se	i ũnõ ghʌr se
I4.	i marõ ghʌr se	u eno ghʌr se
I5.	i matʃhe ghʌr tʃhɛ	ũ otʃhe ghʌr tʃhɛ
I6.		
I7.		
I8.	e moro ghʌr hɛ	jo hɩno ghʌr hɛ/xe?
I9.	a marũ ghʌr se	pelanũ ghʌr se
20.	jo mera ghʌr hʌ^i	vo uska ghʌr hʌ^i
2I.	ɩʃi mʌni log e	ai ai log e
22.	ḏʌ kʌna ura ari	e e:na ura ari

SECTION C : IDENTIFICATION

I. [a] This is my house

I. [b] That is his house

2. [a] He is a teacher

2. [b] He is a good man

3. [a] This is the man's house

3. [b] These are the man's goats

5. [c] two new houses

I. ɗo nʌje ghʌr; ..mʌkan

2. Ɓʌ nʌvẽ ghʌr^

3. ɗ̣u navẽ ghʌr

4. Ɓʌ nʌva ghʌr

5. Ɓe nʌ va ghʌr

6. Ɓe nũva ghʌr

7. Ɓe nʌ va ghʌr

8. Ɓe nuva ghʌr

9.

IO. Ɓe nʌvã ghʌr

II. Ɓe nʌva ghʌr

I2. Ɓe nava ghʌr/ ..nʌva ..

I3. Ɓe nʌva ghʌr

I4. Ɓe ghʌr nʌva

I5. ɗ̣on nʌvĩ ghʌrẽ

I6.

I7.

I8. Ɓe nʌvã ghʌr

I9. Ɓe nʌvõ ghʌr

20. ɗo nʌve ghʌr

2I. ɗo nokhe log

22. ɩra puskuno ura

	4.[a] this	[b] that	5.[a] my	[b] his	....house
I.	jɩ	vo	mera	uska	ghʌr; mʌkan
2.	hi	hu	mohĩdʒo	hunʌdʒo	ghʌr°
3.	e	ũhũ	meɖa	ũhũɖa	ghʌr
4.	e	o	mãdʒo	uvero	ghʌr
5.	e	o	mã[n]dʒo	uvero	ghʌr
6.	e	o	mãdʒo	ijero	ghʌr
7.	e	o	maro	uvero	ghʌr
8.	e	o	maro; mãdʒo	uvero	ghʌr
9.					
IO.	a	u	marõ	ũnõ	ghʌr
II.	e	õ	maro	uvaro	ghʌr
I2.	e	õ	maro	ũvaro/ ũvõro	ghʌr
I3.	a	olu	maro	ũnõ	ghʌr
I4.	i	u	marõ	eno	ghʌr
I5.	ĩ	ũ	mãtʃhe	otʃhe	ghʌr
I6.					
I7.					
I8.	jo	a	moro	hɩno	ghʌr
I9.	a	ijo	marũ	enũ	ghʌr
20.	jo	vo	mera	uska	ghʌr
2I.	je	a	mʌni	ai	log
22.	da	e	kʌna	e:na	ura

	3.[a] one big baby	3.[b] two big babies
I.	ek bʌṛa bʌtʃ:a	ḍo bʌṛe bʌtʃ:e
2.	hɩk vʌḡo Ɓar°/ ..kaki,—o,.	Ɓʌ vʌḡa Ɓar^/ ..kakiũ,—a ..
3.	hɩk vʌḡa Ɓal	ḡu vʌḡe Ɓal
4.	hek vʌḡo Ɓaḷ	Ɓʌ vʌḡa Ɓaḷ
5.	hek Ɓaḷ vʌḡo	Ɓe Ɓaḷ vʌḡa
6.	hek moṭo Ɓaḷ	Ɓe moṭa Ɓaḷ
7.	hek moṭo Ɓaḷ	Ɓe moṭa Ɓaḷ
8.	hek moṭo Ɓaḷjo	Ɓe moṭa Ɓaḷja
9.		
I0.	ek moṭo gʌgo	Ɓe moṭa gʌga
II.	hek moṭo Ɓaḷ	Ɓe moṭa Ɓaḷ
I2.	hek moṭo Ɓaḷ	Ɓe moṭa Ɓal
I3.	ek moṭõ sokrõ	Ɓe moṭã sokrã
I4.	ek moṭʌ haudʌ	Ɓe moṭʌ haudʌ
I5.	hek moṭe Ɓaṛ	ḡon moṭi Ɓaṛẽ
I6.		
I7.		
I8.	ek moṭo ṭabʌre	Ɓe moṭa ṭabʌre
I9.	ek moṭo sorũ	Ɓe moṭo sorõ/ã ?
20.	ek bʌḡa ṭabʌr	ḍo bʌḡe ṭabʌr
2I.	jʌk mʌẓʌn nunok	ḍo mʌẓʌn nunok
22.	ʌsi bʌl:o tʃuna	ɩra bʌl:o tʃuna:o

	2.[a] one big girl	2.[b] two big girls
1.	ek bʌṛi lʌṛki	ḓo bʌṛi lʌṛkiã
2.	hɩk vʌḓi tʃhokɩri	Bʌ vʌḓiũ tʃhokɩriũ
3.	hɩk vʌḓi tʃhokri	ḓu vʌḓiã tʃhokriã
4.	hek vʌḓi niŋgri	Bʌ vʌḓẽ niŋgre
5.	hek niŋgri vʌḓi	Be niŋgre vʌḓe
6.	hek moṭi tʃhokri	Be moṭe tʃhokre
7.	hek moṭi tʃokri	Be moṭe tʃokre
8.	hek moṭi tʃhokri	Be moṭe tʃhokre
9.		
10.	ek moṭi sokri	Be moṭiũ sokriũ
11.	hek moṭi sokri	Be moṭe sokre
12.	hek moṭʌ[i] sokrʌ[i]	Be moṭe sokre
13.	ek moṭi sokri	Be moṭiũ sokriũ
14.	ek moṭi soṛi	Be moṭiũ soṛiũ
15.	hek moṭi dhu; ..tʃhohɩṛi..	ḓon moṭia dhua; ..tʃhohɩṛia
16.		
17.		
18.	ek moṭi tʃhori	Be moṭi tʃhori
19.	ek moṭi sori	Be moṭi sori [j]ẽ
20.	ek bʌḓi tʃhori	ḓo bʌḓiã tʃhoriã
21.	jʌk mʌʐʌn dʒʌnek	ḓo mʌʐʌn dʒʌnek
22.	ʌsi bʌl:o mʌsɩrko	ɩrʌ bʌl:o mʌsɩrko

	6. [c] he saw the girl	6. [d] he saw the girls
I.	usne lʌṛki ko ḍekha	usne lʌṛkiõ ko ḍekha
2.	hunʌ tʃhokɩri ḍɩṭhi	hunʌ tʃhokɩriũ ḍɩṭhiũ
3.	ũhũ tʃhokri ḍɩṭhi hʌ^{i}	ũhũ tʃhokriã ḍɩṭhīã hɩn
4.	uve niŋgri ḍɩṭhe	uve niŋgrẽ ḍɩṭhẽ
5.	ue niŋgri ḍʌṭhiṭi	ue niŋgre ḍʌṭhẽṭẽ
6.	oe tʃhokri ḍiṭhi	oe tʃhokre ḍiṭhi
7.	uve tʃokri ḍiṭhiṭhi	uve tʃokre ḍiṭheṭhe
8.	ue tʃhokri dʒoji	ue tʃhokre dʒoje
9.		
IO.	ũṇe sokri ḍetʃhi	ũṇe sokri[j]ũ ḍetʃhiũ
II.	uve sokri ḍekhji	uve sokre ḍekhje
I2.	uve sokrʌ^{i} bhaḷʌ^{i}/ ue sokrʌ^{i} ḍekhʌ^{i}	uve sokre bhaḷe/ ue sokre ḍekhe
I3.	mẽ sokri bhaḷiṭi	mẽ sokriũ bhaḷiũṭiũ
I4.	ẽṇẽ soṛine bhaḷejṭi	ẽṇẽ soṛiũne bhaḷejṭiũ
I5.	oṇe tʃhohɩrinũ ḍekhlɛ	oṇe tʃhohɩrianũ ḍekhlɛ
I6.		
I7.		
I8.	hɩnʌ tʃhori ḍekhi	hɩnʌ tʃhori ḍekhi
I9.	eṇe sori laḍhi	eṇe sorijẽ laḍhi
20.	un tʃhori ḍekhi	un tʃhorīã ḍekhīã
2I.		
22.	e mʌsɩrkos xʌna	e mʌsɩrko xʌna

7. the boy gave the mango to the girl

I. lʌɽkene lʌɽki kò am ḏɩ ja

2. tʃhokre niŋgri[/tʃhokɩri]khe ʌmbʌ ḏɩno

3. tʃhokre tʃhokri kũ ʌmbʌ ḏɩṯa ha

4. tʃhokre niŋgri na ʌmbʌ ḏinho

5. tʃhokre niŋgri na ʌmɓʌ ɗino

6.

7. tʃokro tʃokri ne ambʌ ḏehe

8. tʃhokre tʃhokri na ambo ḏɩno

9.

IO.

II. sokre sokrine ombɽʌ^i ḏiḏhe

I2. sokre sokrine õmbɽe ḏiḏe / not elicited

I3. sokre sokrine ambɽi ali

I4. sokre soɽine ãmɓɽi ali se

I5. tʃhohʌre tʃhohɩri nũ ʌmbʌ ḏɩla

I6.

I7.

I8. ije tʃhore ije tʃhorine ʌmbo ḏʌḏo

I9. sije sorine keri ḏiḏhi

20. tʃhore tʃhorija kũ ãmbʌ ḏija

2I.

22. marko mʌsɩrko e ʌmbʌs tɩs

SECTION E : DESCRIPTION

I. The boy is sick

2. I am tired

3. The water is hot

	I. the boy is sick	2. I am tired	3. the water is hot
I.	lʌṛka bimar hɛ	mɛ̃ ṭhʌka hua hũ	pani gʌrʌm hɛ
2.	tʃhokɩro bimar ahe	aũ ṭhʌko ahja	paṇi gʌrʌm ahe
3.	e tʃhokra bimar he	mʌ̃[ĩ] ṭhʌk piã;..hẽjã	e paṇi kosa he
4.	o tʃhokro bimar ɛhɛ	hũ ṭhʌko ṭheo ʌh[a]	paṇi ũnhõ ɛhɛ
5.	tʃhokro bimar ehe	hũ ṭhʌko ãhã /ʌ̃?	paṇi onho ehe
6.	tʃhokro bimar he	õ ṭhʌkoṛo he	paṇi ũṇõ he
7.	tʃokro bimar he	hũ ṭhakõ hõ	põṇi ũnõ he
8.	tʃhokro huʃarʌ koni	hũ ṭhʌkoro	paṇi ũnhõ hɛ
9.			
I0.	sokro mãḏo se	hũ ṭhatʃo sõ	paṇi ũnõ se
II.	sokro nazo nʌṭhi	hũ ṭhakjo	põṇĩ ũnõ se
I2.	sokro bimar se/ sokro tavlijo se	hũ ṭhakʌl sõ/ hũ ṭhʌkʌl sõ	põṇĩ ũnõ se/..ũṇõ..
I3.	sokṛa mãḏo se	mũ ṭhatʃõ sõ	paṇi ũṇõ se
I4.	sokro bimar se	mũ ṭhatʃo sõ	pãṇĩ ũṇõ se
I5.	tʃhohʌr bimar tʃhɛ	mẽ ṭhʌkoṛa tʃhẽ	paṇi gʌrʌm tʃhɛ
I6.			
I7.			
I8.	je tʃhoro xau koine	mɛ ṭhʌki gijo	paṇi ṭaṭo xɛ
I9.	sijo moḏo se	mũ poṭhatʃo	poṇi hũnũ se
20.	tʃhora bimar hʌ[i]	hũ ṭhʌki gʌ ja	paṇi ṭaṭa hʌ[i]
2I.			
22.	marko bimar e	i ḏʌm dre ga: nuṭ	ḏir basun e

SECTION F : LOCATION

I. The girl is in the house

2. The boy is in the town

3. The dog is under the table

4. The goat is behind the tree

I. the girl is in the house   2. the boy is in the town .....

I.	lʌɽki mʌkan mẽ hɛ	lʌɽka ʃɛhʌr mẽ hɛ
2.	niŋgri, tʃhokɩri ghʌr° mẽ ahe	tʃhokɩro ʃʌhʌr mẽ ahe
3.	e tʃhokri ghʌr vɩtʃɩ he	e tʃhokra ʃɛhɛr vɩtʃɩ he
4.	niŋgri ghʌrme ɛhɛ	tʃhokro ʃɛhɛrme ɛhɛ
5.	niŋgri ghʌr mi ehe	tʃhokro seher mi ehe
6.	tʃhokri ghʌr mẽ he	tʃhokro ʃeher mẽ he
7.	tʃokri ghʌr me he	tʃokro ʃeher me he
8.	tʃhokri ghʌrme he	tʃhokro ʃeherme hɛ
9.		
IO.	sokri ghʌr ma se	sokro gam:ʌ ma se
II.	sokri ghʌr me se	sokro ɓʌzar me se
I2.	sokrʌ^{i} ghʌri se/..ghʌre..	sokro ɠomʌ̃^{1} se, sokro ʃeher mẽ se
I3.	sokri ghʌr ma se	sokra ʃeher ma [dʒo] se
I4.	soɽi ghʌr ma se	sokro ʃer ma se
I5.	tʃhohɩri ghʌra mẽ tʃhɛ	tʃhohʌr gʌvʌ̃ mẽ tʃhɛ
I6.		
I7.		
I8.	tʃhori ghʌrma xɛ	tʃhoro xɛxɛrma xɛ
I9.	sori ghʌre se	sijo ghomram se
20.	tʃhori ghʌramẽ hʌ^{i}	tʃhora sɛheramẽ hʌ^{i}
2I.		
22.	masɩrko ura ţine	marko ʃar ţine

	3. the dog is under the table	4. the goat is behind the tree
I.	kot̪:a mez ke nitʃe hɛ	bʌkri d̪ʌrʌxt̪ ke pitʃhe hɛ
2.	kut̪o mez^ʌ dʒe het̪hja ahe/ ....het̪hõ.....	ßʌkri vʌɳʌ dʒe pot̪hja ahe
3.	e kut̪o medʒ d̪e het̪hũ bet̪haj	ßʌkri vʌɳʌ d̪e pɩtʃhũ khʌɽi he
4.	kut̪o mezre het̪hija ɛhɛ	ßʌkʌr vʌɳʌ ad̪o ɛhɛ
5.	kut̪o t̪evʌl hɩt̪hija ehe	tʃhaḷi vʌn larija ehe
6.	kut̪o mezre het̪ha he	bʌkri bʌɳre lari he
7.	kut̪ro mosʌ het̪hi he	bʌkri vʌɳʌ laɽe [ubhi] he
8.	kut̪o t̪ebʌl re het̪hija hɛ	ßʌkri bʌɳʌ re lare hɛ
9.		
I0.	kut̪ro t̪ebʌl het̪he se	bʌkri dzaɽka ad̪i se
II.	kut̪ro khat̪ het̪h se	ßʌkri zaɽka lar se
I2.	kut̪ro mez het̪h sɛ	Bakro vaɳʌ võhʌ̃ḷʌ sɛ/ bʌkrʌ^i vʌɳʌ oḷʌ^i se
I3.	kut̪ro majiz hẽt̪hẽ se	ßʌkri dzaɽkha vʌhẽ se
I4.	kut̪ro t̪ebʌl het̪hẽ se	ßʌkri zarkha tʃeɽẽ se
I5.	kot̪ra t̪ebli tʃe dʒhɩka tʃhɛ	bakri bʌɳa tʃe larũ tʃhɛ
I6.		
I7.		
I8.	lũd̪ijo kat̪lana het̪he xɛ	bakri vʌɳʌna kẽnẽ xɛ
I9.	kut̪rũ t̪ebʌl het̪h ßet̪hu	ßakri zaɽhua tʃer se
20.	kut̪a khat̪a t̪aḷe hʌ^i	tʃheḷi d̪ʌrkʌt̪ ke gelʌvã ku hʌ^i
2I.		
22.	kutʃʌk majiz nʌ ke rʌŋʌn are	et̪a dʌrʌxt̪ nʌ xerʌn e

SECTION G : POSSESSION

I. [a] he has a knife

I. [b] he does not have a knife

2. she has three children

	I. [a] he has a knife	I. [b] he does not have a knife
I.	uske pas tʃaku hɛ; ....tʃuri...	uske pas tʃaku nʌhĩ hɛ
2.	hun^ʌ vʌṭʌ tʃaku ahe	hun^ʌ vʌṭʌ tʃaku nʌ ahe
3.	ũhũ kã tʃaku he	ũhũ kã tʃaku konhĩ
4.	uve kʌna tʃaku ɛhɛ	uve tʃaku konʌhĩ ɛhɛ
5.	ue kʌnhi tʃaku ehe	ue kʌnhi tʃaku koni ehe
6.	ue guḍhe tʃaku he	ue guḍhe tʃaku kon he
7.	uve kʌṇe tʃaku he	uve kʌṇe tʃaku hajkoji he
8.	ue koḍhi tʃaku hɛ	ue koḍhi tʃaku koni
9.		
I0.	ũ kʌne tsaku se	ũ kʌne tsaku nʌṯhi [se]
II.	uva kʌne ʃaku se	uva kʌne ʃaku nʌṯhi
I2.	õ sakuṛo sɛ/ ua kʌn sakuṛo se	õ sakuṛo nʌṯhi/ ua kʌn sakuṛo nʌṯhi se
I3.	ena kʌne saku se	ena kʌne saku nʌṯhi
I4.	ẽ kʌne saku se	ẽ kʌne saku sʌjni
I5.	o khʌnʌ tʃaku tʃhɛ	o khʌnʌ tʃaku konʌhĩ [tʃhɛ]
I6.		
I7.		
I8.	hɩnʌ kʌne tʃʌrijõ xẽ	hɩnʌ kʌne tʃʌrijõ koine
I9.	eṇe kʌn[ʌ]he saku se	eṇe kʌṇ[ʌ]he saku koṯhi
20.	isẽ khurija hʌ^i	ise khurija na hĩ
2I.		
22.	eṯun katʃus are	eṯun katʃus ʌf

2. she has three children

I. uske ṭin bʌtʃːe hɛ

2. hun^ʌ khe ṭ^r e ɓarʌ ahɩn

3. ũhũ ḍe ṭre ɓal hɩn

4. uve ṭrʌn ḡikra ɛhɛ

5. ue ra trʌn ɓaḷ ehe

6. ie na ṭin ɓaḷ he

7. uve ne ṭin ɓaḷ he

8. uera ṭin ɓaḷ hɛ

9.

IO. ũṇe trʌn sokrã se

II. uva kʌne trʌŋ sokra se

I2. uvarʌ trʌŋ ɓaḷ se/ ua kʌn ṭhrʌn sokra se

I3. ena kʌne trʌ̃ŋ sokrã se

I4. ẽṇẽ ṭrʌŋ sokra se

I5. onũ ṭin ɓaṇẽ tʃhɩṭi

I6.

I7.

I8. hɩnʌ kʌne trʌn ṭabʌre xẽ

I9. eṇe ṭreṇ sorõ se

20. iske ṭin ṭabʌr hʌ^i

2I.

22. ede muse tʃuna are

SECTION H : INTERROGATIVE

I. Did the man come yesterday?

2. Why did the man come yesterday?

3. Where is the boy?

4. When will the girl come

N.B. Some attempt was made in this section to record the intonation contours. However, they are not shown in the data here because of the difficulty of showing patterns that are accurately contrastive with each other.

I. did the man come yesterday?	2. why did the man come yesterday?
I. kja vo aḍmi kʌl aja	vo aḍmi kʌl kjũ aja
2. tʃha maŋ̣hu kʌlhʌ ajo	maŋ̣hu kʌlhʌ tʃho ajo
3. kʌlhʌ maŋ̣hu ajaha kja	kʌlhʌ maŋ̣hu kjõ ajaha
4. ki maṛhu kal ajo	kal maṛhu ki ajo
5. kal ki maŋ̣u ajo	kal maŋ̣u ki ajo
6. ki maŋ̣ʌxʌ kalhe ajo	maŋ̣ʌxʌ kalhe kja ajo
7. ki mʌnke lev[a] ajoṯo	kale mʌnke ki leva ajoṯo
8. ki kalhe mɩnʌkh ajoṯo	kalhe mɩnʌkh kja ajoṯo
9.	
IO. ʃõ kal[e] aḍmi ajo	kal aḍmi tʃem ajo
II. ki aḍmi kal aja	aḍmi kʌm aja
I2. ki mõŋ̣he kal ajo/ ki mõŋ̣ẽ kaḻo se	mõŋ̣he kal kʌm ajo/ mõŋ̣ẽ kaḻo kʌm se
I3. ʃõ kale aḍmi ajoṯo	mʌŋ̣ekhʌ kale tʃʌm ajoṯo
I4. ʃũ i aḍmi kale ajoṯo	i aḍmi tʃʌm ajoṯo
I5. ka maŋ̣ʌsʌ kalhʌ alɛ	kalhʌ maŋ̣ʌsʌ ka alɛ
I6.	
I7.	
I8. kal aḍmi avijoṯhõ	kal aḍmi se avijoṯhõ
I9. hu kal vɩrṯo ajoṯ	kal vɩrṯo ʃe ajoṯ
20. kal aḍmi ajaṯhija kja	kal aḍmi kjõ ajaṯhija
2I.	
22. ḏʌru bʌndʌɣʌs bʌsusus ʌnta	dʌru bʌndʌɣ ʌntake bʌsusus

	3. where is the boy?	4. when will the girl come?
I.	lʌṛka kʌhã hɛ	lʌṛki kʌb aegi
2.	tʃhokɩro kɩṭhe ahe	niŋgri kʌḍʌhe inḍi
3.	o tʃhokra kɩṭhaj he	o tʃhokri kʌḍã asi
4.	tʃhokro kɩṭhe ɛhɛ	niŋgri kʌḍʌha ase
5.	tʃhokro kɩṭhʌ ehe	niŋgri kʌḍʌhe ase
6.	tʃhokro kɩṭhje he	tʃhokri kiḍe aiçe
7.	tʃokro keṭhe he	tʃokri kʌḍehe ahe
8.	tʃhokro keṭh hɛ	tʃhokri kiḍe aiʃe
9.		
I0.	sokro tʃã se	sokri tʃerẽ avʃe
II.	sokro keṭh se	sokri kʌ̃jõ avʃe
I2.	sokro keṭhe se	sokrʌ^{i} kʌ̃jõ avʃe/ sokri kʌijo avʃe; sokri keḍi avʃe
I3.	sokro tʃã se	sokri tʃare avʃe
I4.	sokro tʃã se	soṛi kʌḍi avise
I5.	tʃhohʌr kɩṭhɩ tʃhɛ	tʃhohri kɩḍʌ avhi/ ḍhu......
I6.		
I7.		
I8.	tʃhoro kjaha xɛ	tʃhori kʌḍi avxɛ
I9.	sijo tʃõhõ	sori tʃarẽ avhe
20.	vo tʃhora kʌṛe hʌ^{i}	keḍh tʃhori avgṛi
2I.		
22.	marko ara ḍe	mʌsɩrko tʃɩvʌ bʌrek

1. [ɛ], [ɔ] are [ʌ^{i}], [ʌ^{o}] respectively in some dialects of Urdu.

2. Final raised vowels are short and light and almost lost in fast speech. [ṭ], [ḍ] become [ṭ^{r}], [ḍ^{r}] in some dialects.

3. Verbal form [pijae] may be [pije]

4. Final consonants except [r] are released. Vowels in [ɛhɛ] tend to be breathy.

5. [ð] is probably [ð̣] though [ð̠] may exist.

6. As 5. [ç] may be [x] or in fluctuation. [he] 'is' fluctuates with [hɛ]. [-h] drops out of [meh] 'we' in fast speech.

7. As 5. [e] moves towards [ɛ] in the environment of [h].

8. As 5. [he] is fluctuates with [hɛ]. [mehe] 'we' contracts to [me] in fast speech.

9. Informant tended to implode word-initial [b] to [ɓ]. Probably due to Sindhi influence. Not contrastive or phonemic.

10. [ts] and [dz] tend to fluctuate with [s] and [z] respectively.

11.

12.

13. [ts] fluctuates with [s] and [dz] with [z]

14.

15. [ɛ] fluctuates with [e] word-finally.

16. Word-final consonants released.

17.

18. [xɛ] may fluctuate with [hɛ]

19. [ajot̪] has clearly released final [t̪] [possibly aspiration?]

20.

21. Word-final consonants released. Strong dentalisation may be speaker aberration? Word-final [e] tends to be centralized.

22. Final plosives released. [-ini] seems to fluctuate with [-ene] as verbal ending. [ɫ] may be voiceless [l̥]. [d] may be [d̠] and [t] may be [t̪].

INDEX OF LANGUAGES IN THE LISTS

I. URDU

2. SINDHI [STANDARD]/ HINDU [NORTHERN]

3. SIRAIKI

4. DHATKI [THAR]

5. DHATKI [RAJASTHAN]

6. MARWARI [MEGHWAR, JAISELMER]

7. MARWARI BHIL

8. MARWARI BHIL [JODHPUR]

9. GUJARATI

IO. KACHI KOLI

II. PARKARI KOLI [NAGAR PARKAR]

I2. PARKARI KOLI [KUNRI/MIRPUR KHAS]

I3. WADIYARA KOLI

I4. THARADARI KOLI

I5. ODKI [DADU]

I6. ODKI [SHIKARPUR]

I7. ODKI [PITHORO]

I8. BAGRI

I9. VAGHRI

20. SANSI

2I. MAKRANI

22. BRAHUI